Swegon

Fault tracing tripped alarm GOLD E			Document no.	Revision	Page 1 (146)
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Type of document **Instruktion**	Drawn up by Bertil Sjunnesson	Revised by Magnus Hallén	Released and published by		

Instructions for troubleshooting tripped alarms in the GOLD Version E.

Contents

1. General

The layout for the instructions for troubleshooting is based on the alarm list in the GOLD version E.

Find the current tripped alarm in the list and follow the instructions in the rectangles.
The instruction is followed by a question, which has Yes or No as possible response.

Follow the arrow for the correct response to the next instruction. Disregard all instructions that come after incorrect response options.

1.1 Authorisation

Only instructed personnel who are trained and have been informed of the risks involved and the correct way to handle components shall be allowed to carry out tests and troubleshoot while the air handling unit is energised.

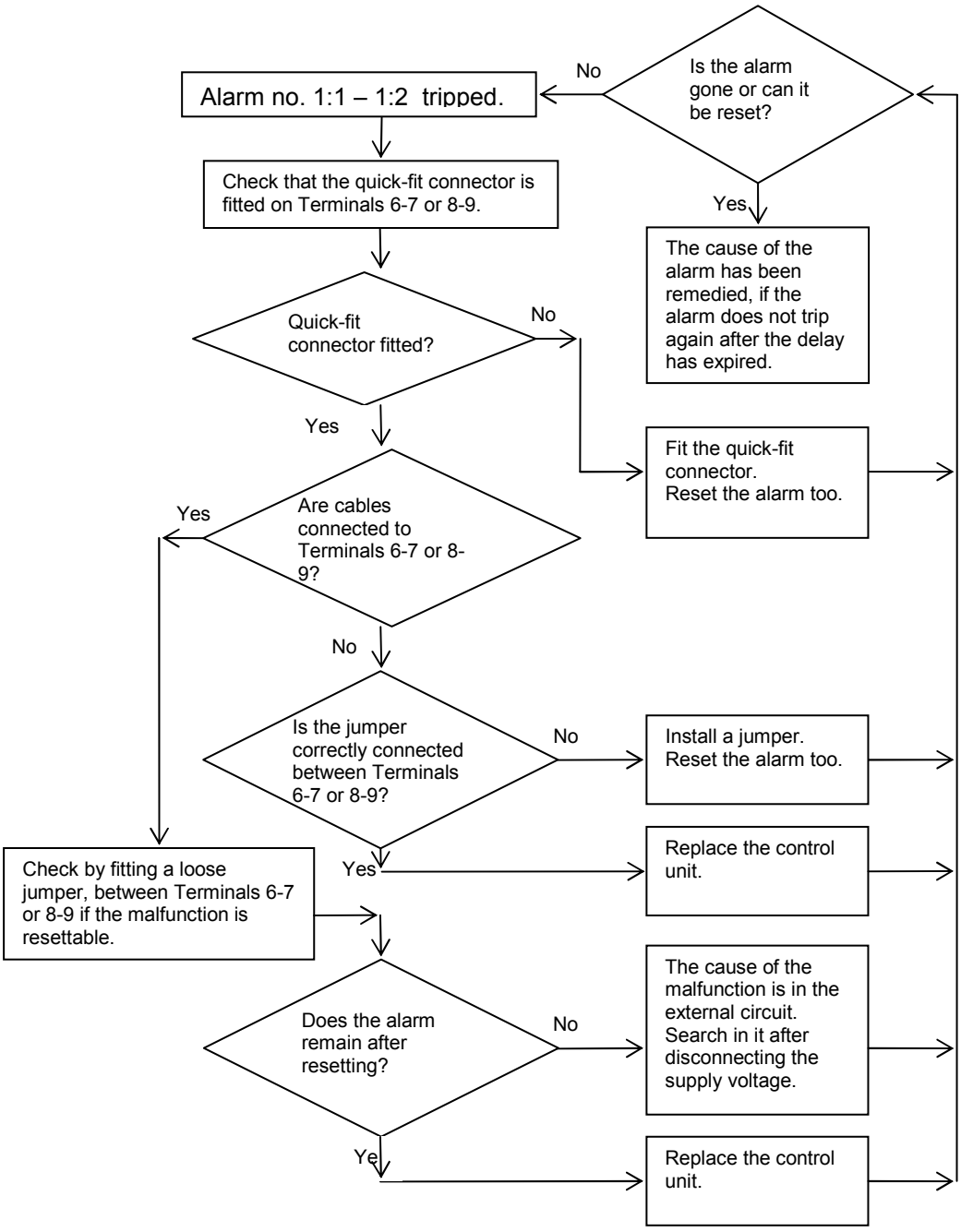
The technicians who will be taking measurements of the equipment while it is energised, shall have been trained in electro technology, shall have information about the functions of the air handling unit and shall have sufficient experience enabling them to avoid the hazards which electricity and moving parts can involve.

2. Tripped alarms

2.1. Alarm group 1: FIRE ALARMS

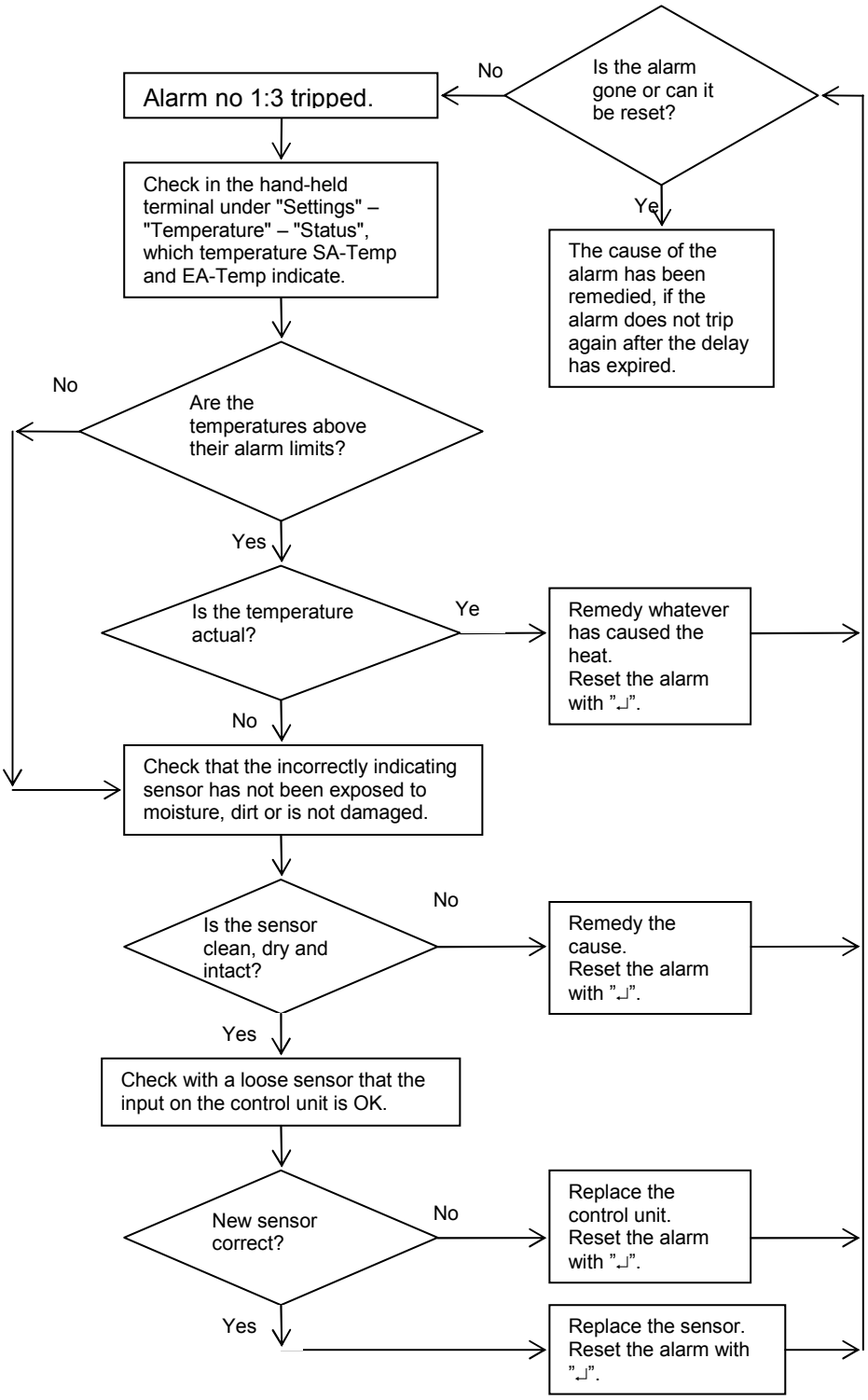
2.1.1. Alarm no. 1:1 – 1:2 ”External fire alarm no. 1/2 tripped”

The alarm trips when the external connection between Terminals 6-7 or Terminals 8-9 on the IQLogic control unit is broken.



2.1.2. Alarm no. 1:3 ”Internal fire alarm tripped”

The alarm is only enabled when the "Internal fire alarm" function is enabled in the hand-held terminal under "Settings" – "Installation" – "Alarm priority". The alarm trips when the SA temp. sensor measures a temperature above 70°C or the EA temp. sensor measures a temperature above 50°C.



2.2. Alarm group 2: EXTERNAL ALARMS

2.2.1. Alarm no. 2:1 – 2:2 "External alarm no. 1/2 tripped"

The alarms are always enabled.
The alarms trip when the relevant terminal input has the preset function for alarms.

The corresponding input for "External Alarm 1/2, input" can, under "Alarm priority" in the HMI, be set to initiate alarms in the event of a "Closed circuit" or an "Open circuit".

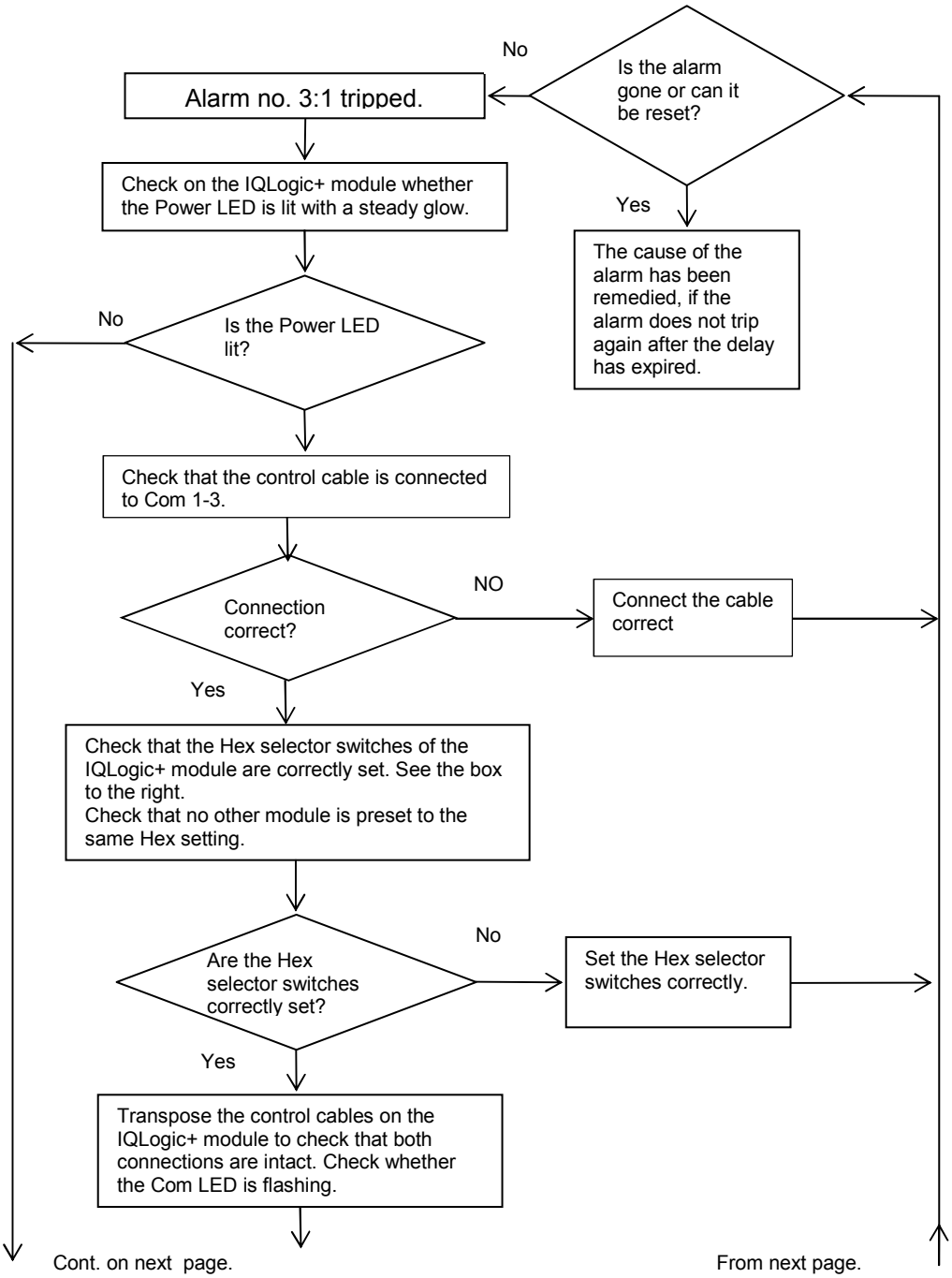
External Alarm 1 should be connected to Terminals 10 – 11 on the IQLogic control unit.
External Alarm 2 should be connected to Terminals 12 – 13 on the IQLogic control unit.

Check the external alarm circuits.

2.3. Alarm group 3: PRE-HEAT ALARMS

2.3.1. Alarm no. 3:1 "Pre-heat, I/O module no. 9 communication error"

The alarm of the IQLogic+ module is enabled when some Pre-heat function is activated.
The alarm trips if the control unit does not achieve correct communication with the module.



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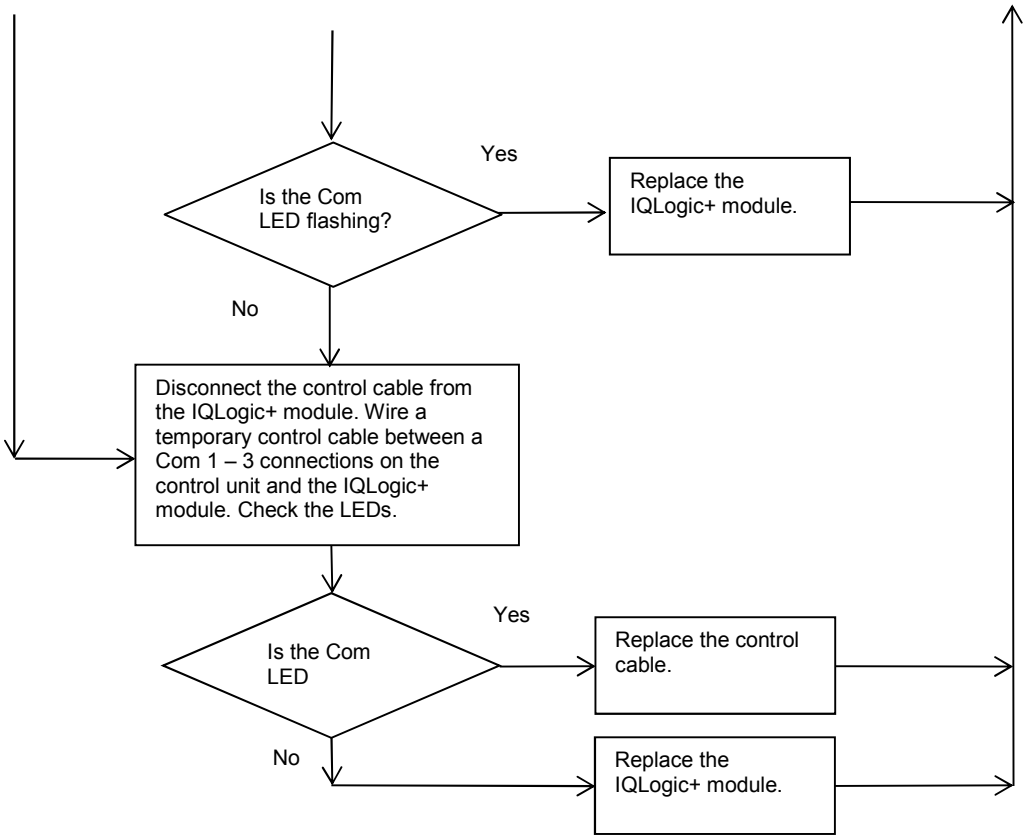
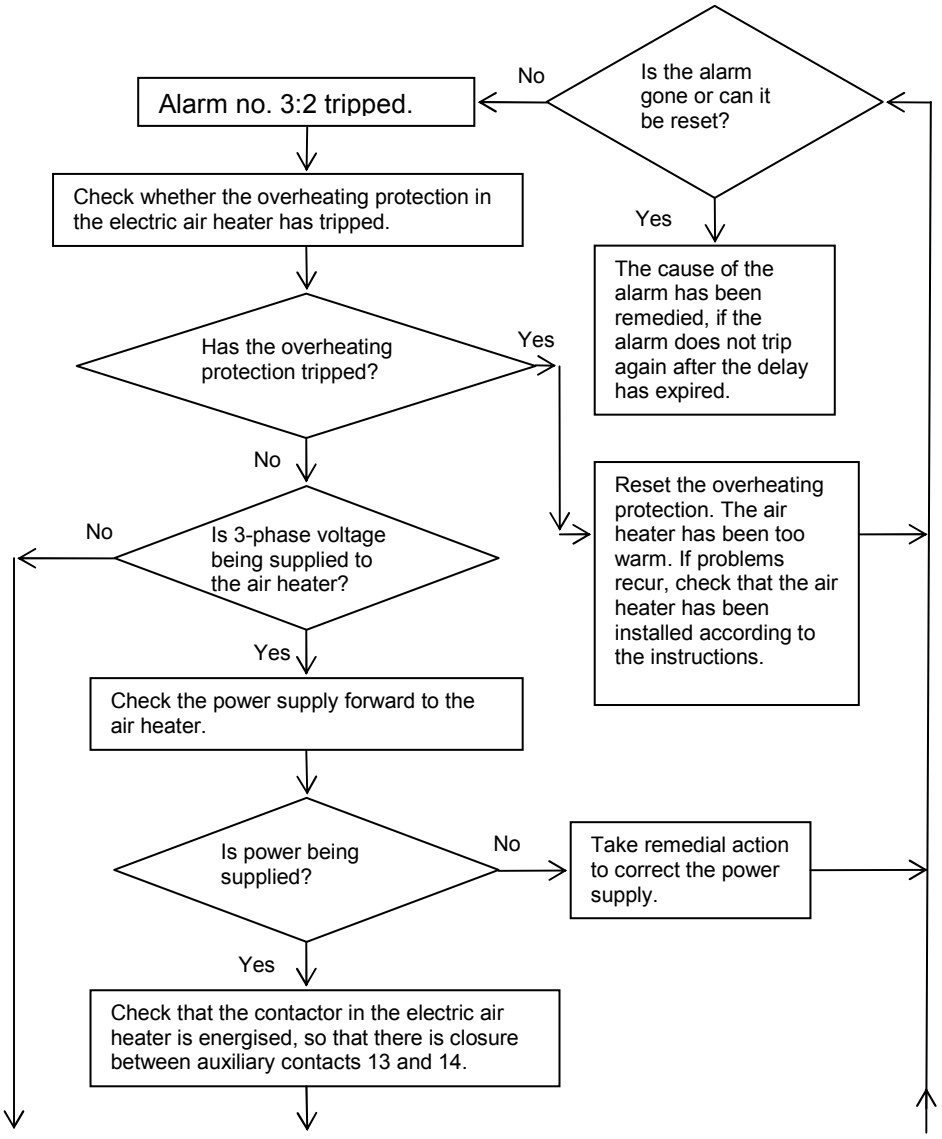


Hex settings:	IQlogic
External monitoring = 3.	Medium
Humidification = 4.	Small
SMART / AQUA Link = 5.	Small
External monitoring = 6.	Medium
AYC = 7.	Medium
Booster diffusers = 8.	Medium
Pre-heat =9.	Medium
Xzone = A.	Medium
Xzone = B.	Medium
Extra regulation sequence = E	Medium

2.3.2. Alarm no. 3:2 ”Pre-heat, overheated electric air heater tripped”

The alarm is only enabled when pre-heat with electric air heater is activated.
The alarms trip when there is no connection between the wires for alarms in the communication cable from the electric air heater. Contactor K1 is not energised.
The modular cable should be connected to the RJ45 connection marked ”Heat/Cool”.



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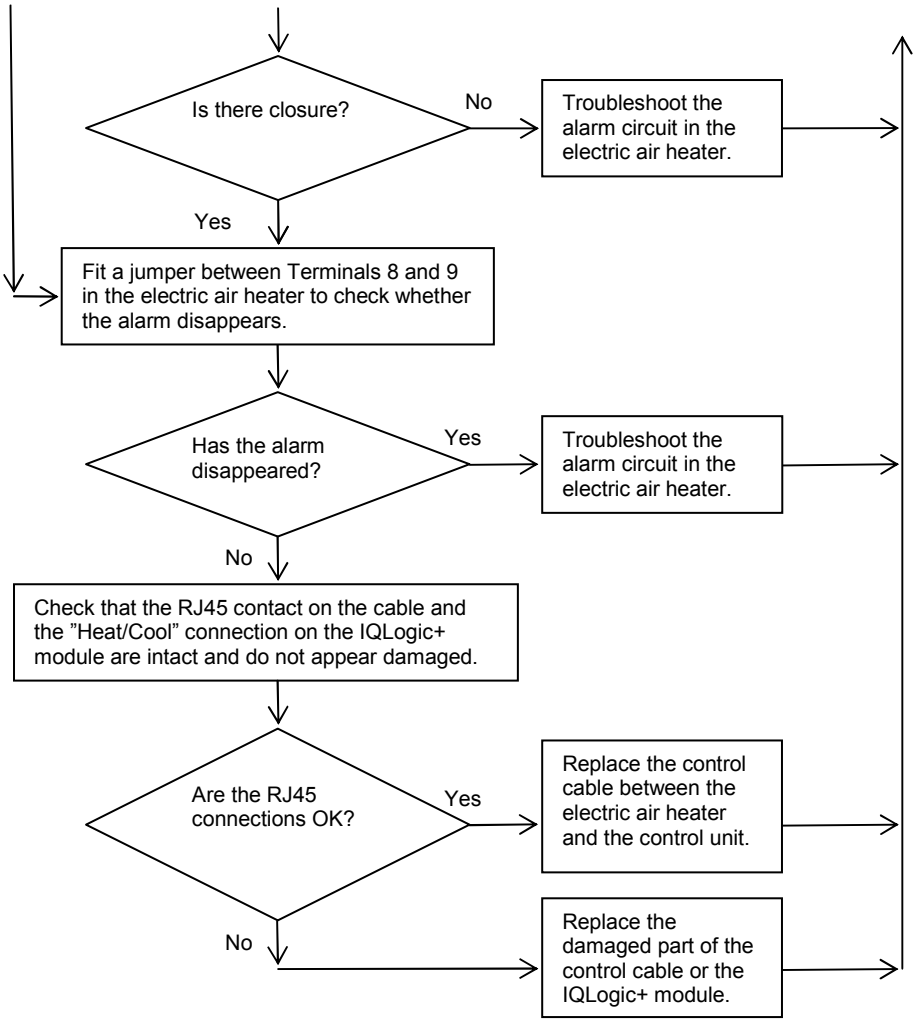
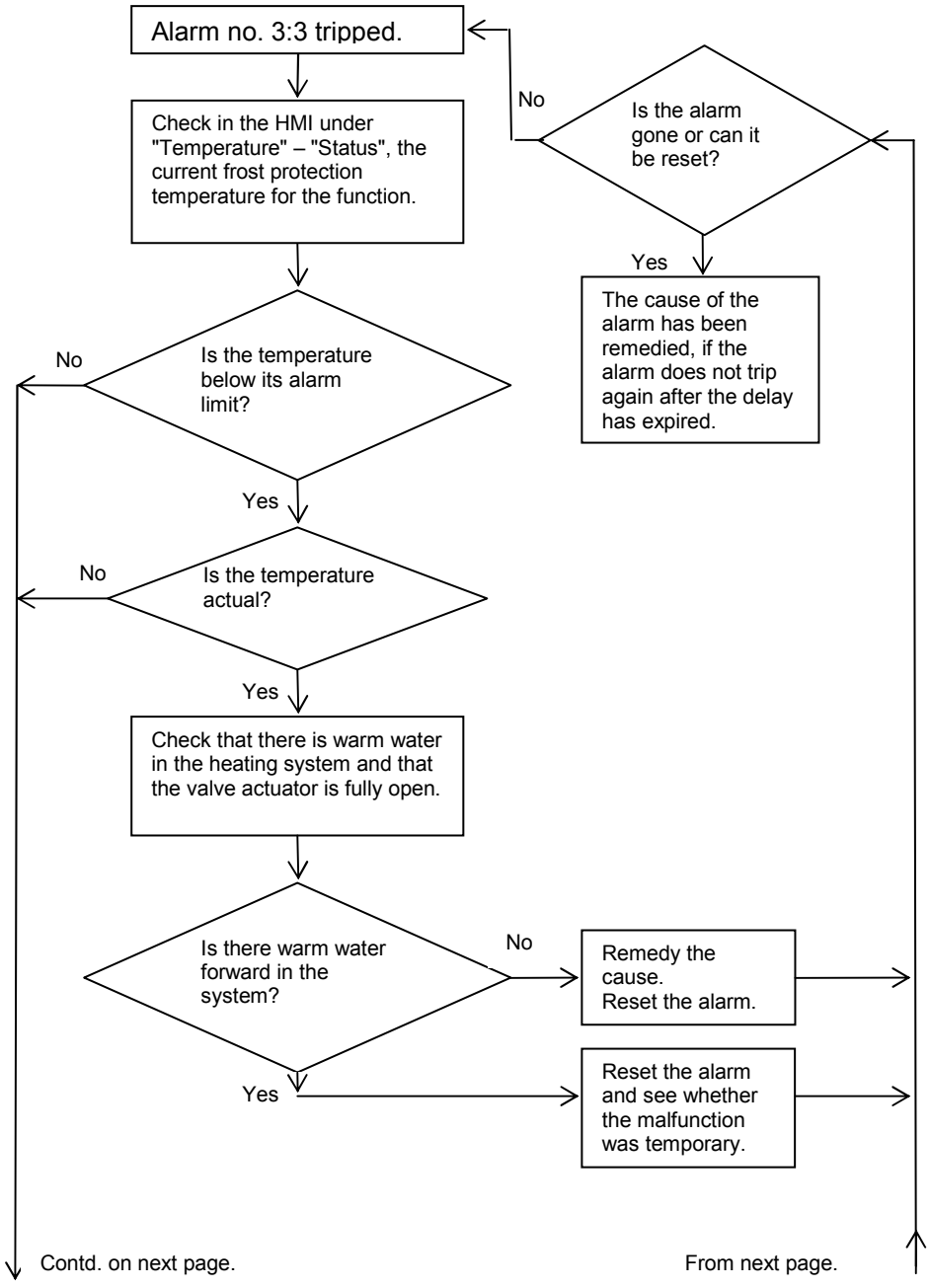
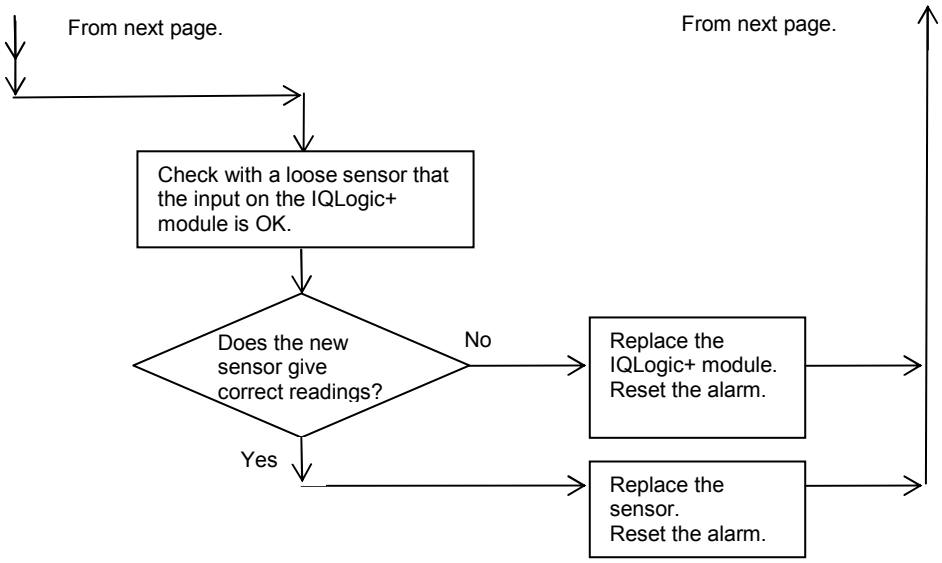


2.3.3. Alarm no. 3:3 "Pre-heat, frost guard alarm tripped"

The alarm is only enabled when Pre-heat is activated and a type10 water coil is connected.
The alarm trips when the frost guard temp. sensor measures a temperature below the preset alarm limit.
The alarm limit is factory preset to 7°C.

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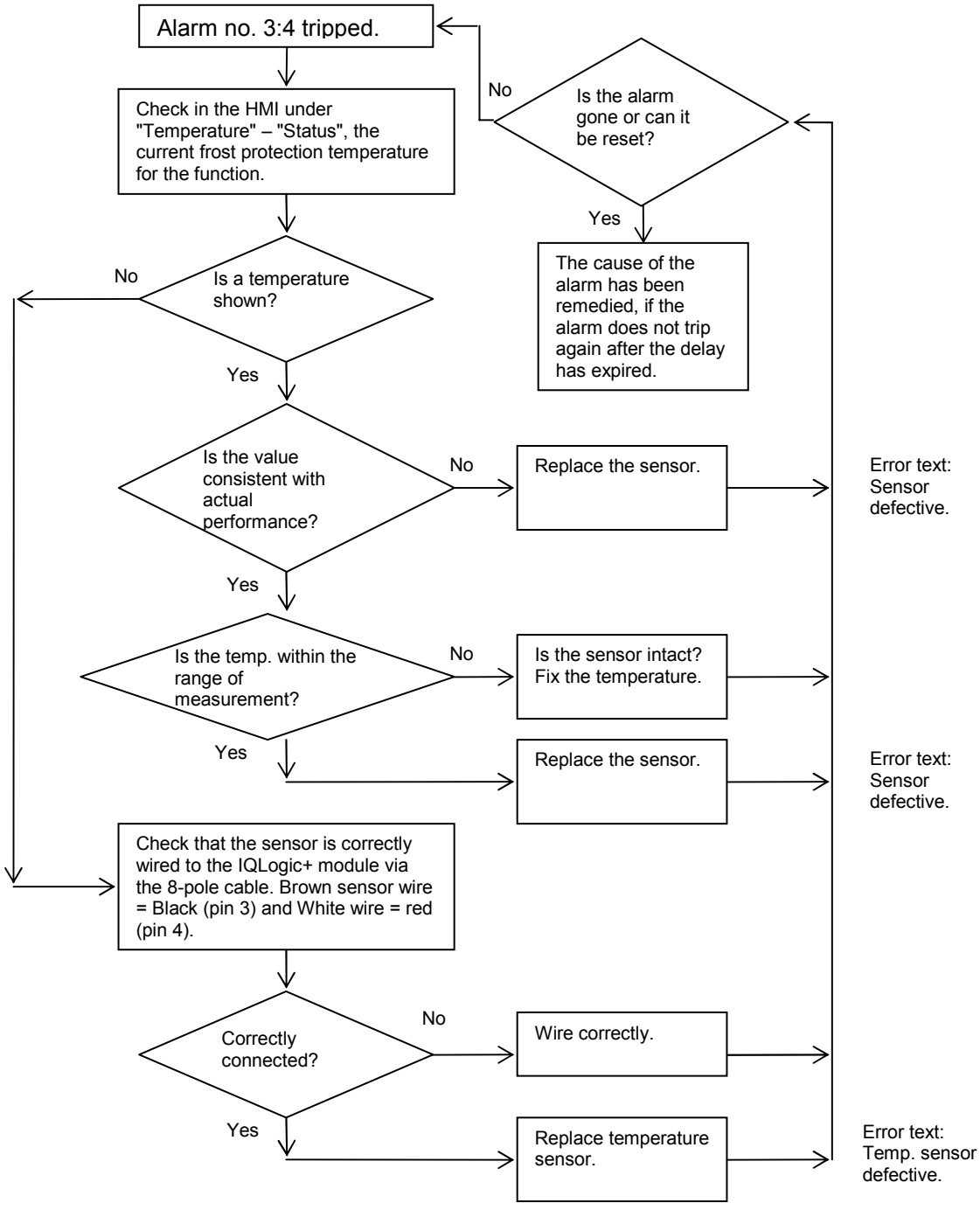
Check with a loose sensor that the input on the IQLogic+ module is OK.
Does the new sensor give correct readings?
No
Replace the IQLogic+ module. Reset the alarm.
Yes
Replace the sensor. Reset the alarm.

2.3.4. Alarm no. 3:4 ”Pre-heat, frost guard sensor defective”

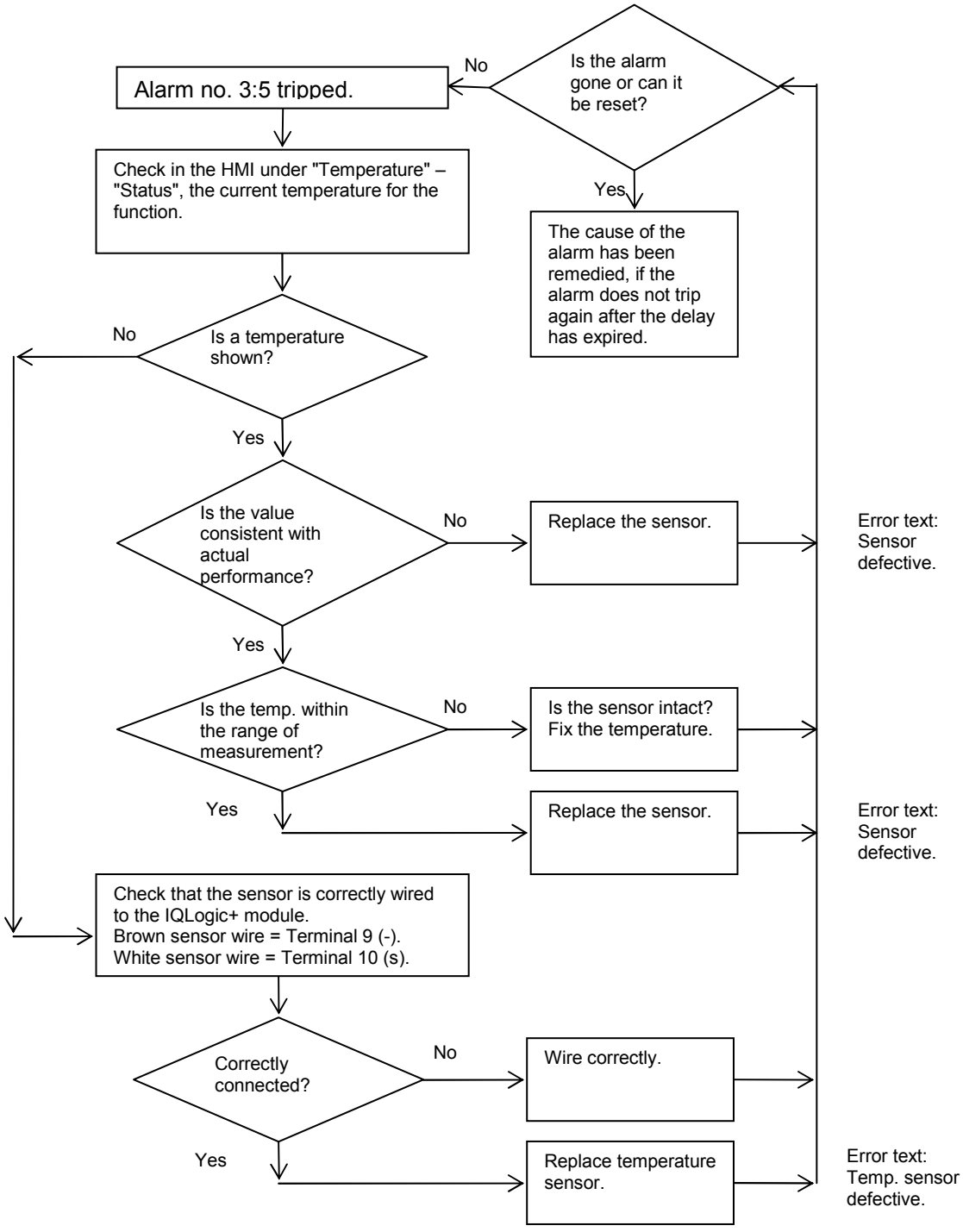
The alarm is only enabled when Pre-heat is activated and a type10 water coil is connected.
The alarm trips when the control unit does not have communication with the frost guard temperature sensor or when the sensor measures temperatures outside the range of measurement (-55°C – 125°C).



2.3.5. Alarm no. 3:5 "Pre-heat, frost guard sensor defective"

The alarm is enabled when the Pre-heat function is activated. The sensors are assumed to always be connected to the IQLogic+ module.

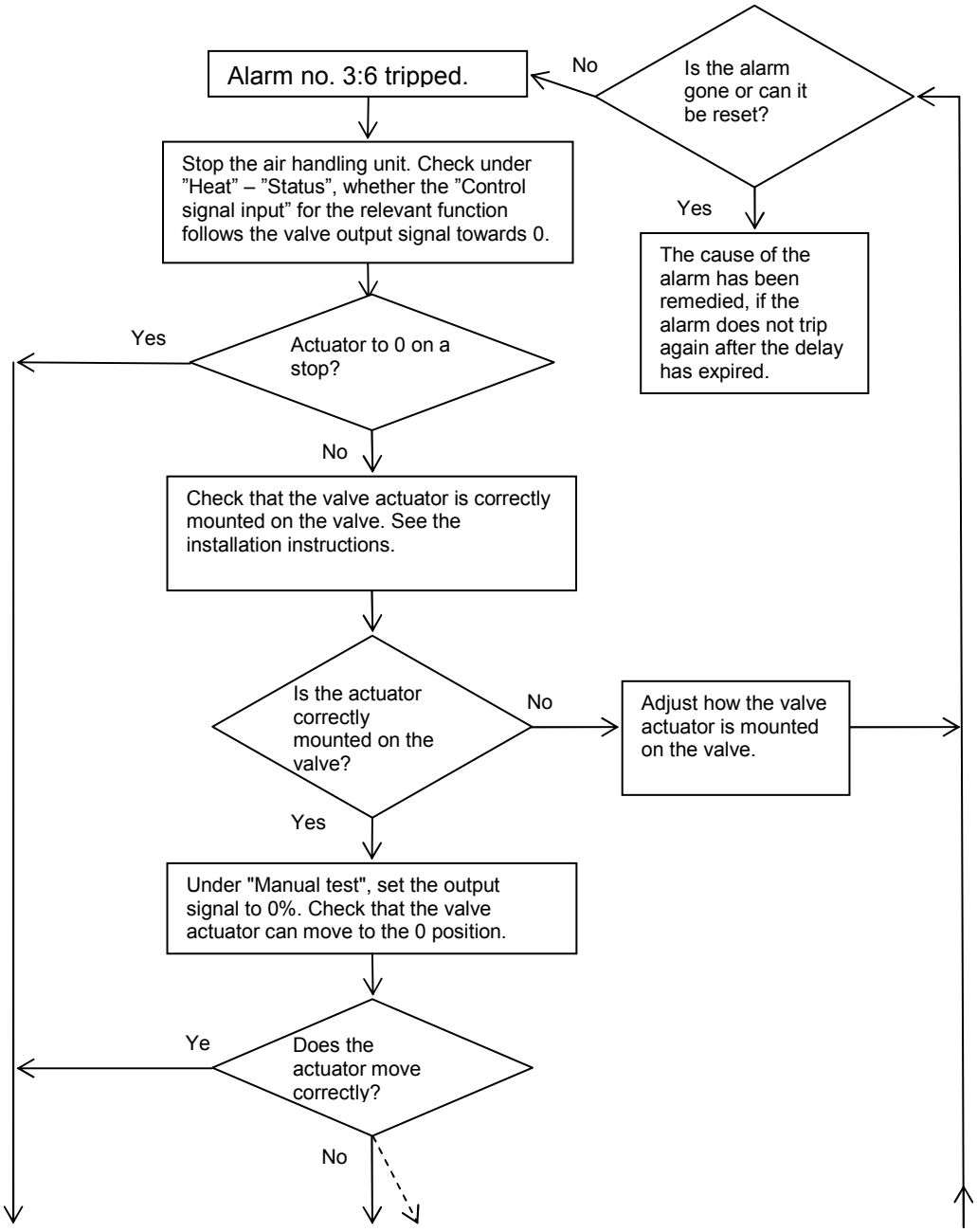
The alarms trip when the control unit does not have communication with the temperature sensor or when the sensor measures temperatures outside the range of measurement (-55°C – 125°C).

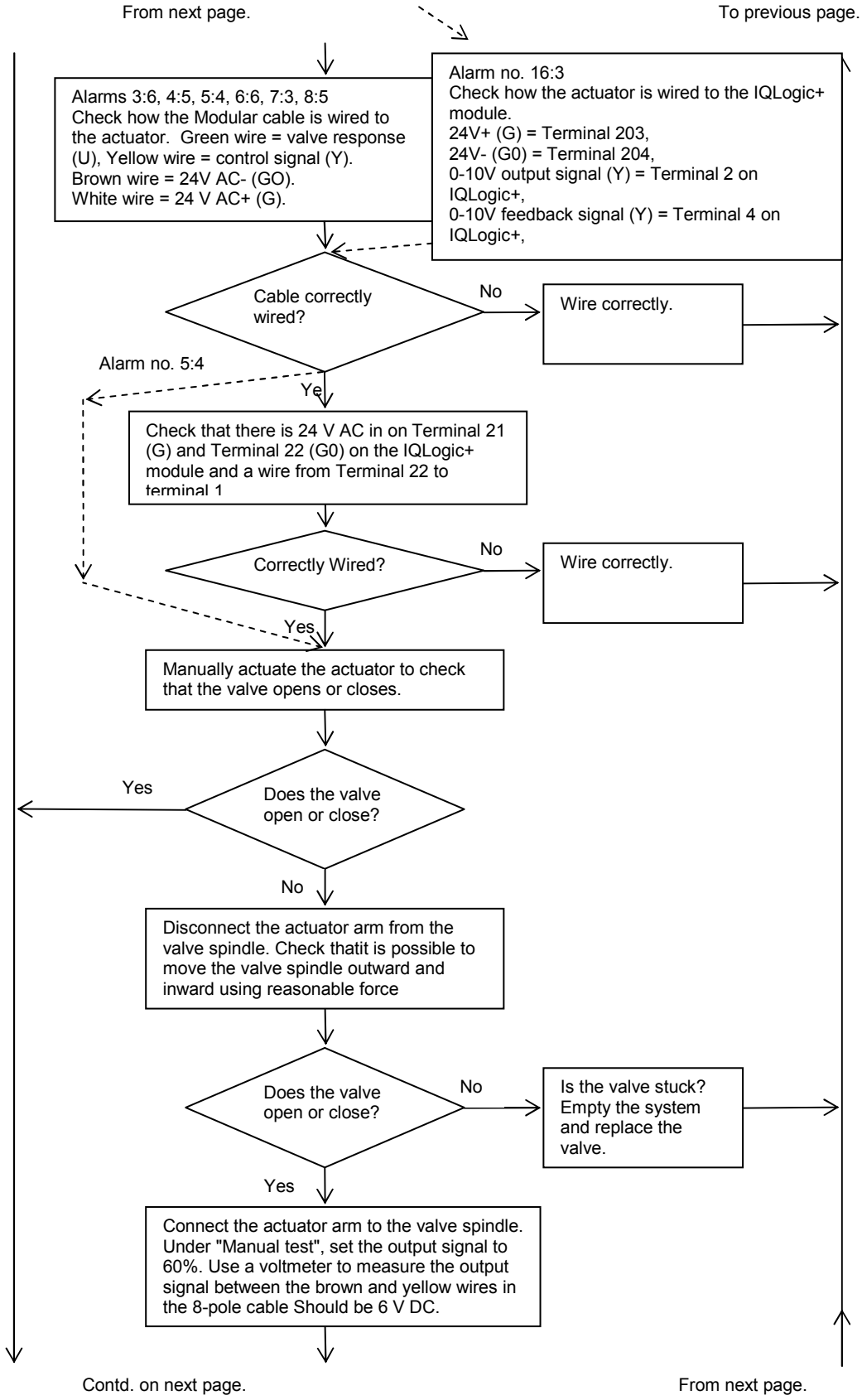


2.3.6. Alarm no. 3:6 ”Pre-heat, valve monitoring tripped”

The alarm is only enabled when Pre-heat is activated, the type 9 or 10 water coil is connected and Valve monitoring has been manually activated. The alarm trips when the feedback signal (input signal) from the valve

actuator does not agree with the control signal. For a 0% output signal the feedback must be < 8% and for a 100% output signal >92% so that the alarm will not trip.

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Alarms 3:6, 4:5, 5:4, 6:6, 7:3, 8:5
Check how the Modular cable is wired to the actuator. Green wire = valve response (U), Yellow wire = control signal (Y).
Brown wire = 24V AC- (GO).
White wire = 24 V AC+ (G).
Alarm no. 16:3
Check how the actuator is wired to the IQLogic+ module.
24V+ (G) = Terminal 203,
24V- (G0) = Terminal 204,
0-10V output signal (Y) = Terminal 2 on IQLogic+,
0-10V feedback signal (Y) = Terminal 4 on IQLogic+,
Cable correctly wired?
No
Wire correctly.
Alarm no. 5:4
Ye
Check that there is 24 V AC in on Terminal 21 (G) and Terminal 22 (G0) on the IQLogic+ module and a wire from Terminal 22 to terminal 1
Correctly Wired?
No
Wire correctly.
Yes
Manually actuate the actuator to check that the valve opens or closes.
Does the valve open or close?
Yes
No
Disconnect the actuator arm from the valve spindle. Check thatit is possible to move the valve spindle outward and inward using reasonable force
Does the valve open or close?
No
Is the valve stuck? Empty the system and replace the valve.
Yes
Connect the actuator arm to the valve spindle. Under "Manual test", set the output signal to 60%. Use a voltmeter to measure the output signal between the brown and yellow wires in the 8-pole cable Should be 6 V DC.
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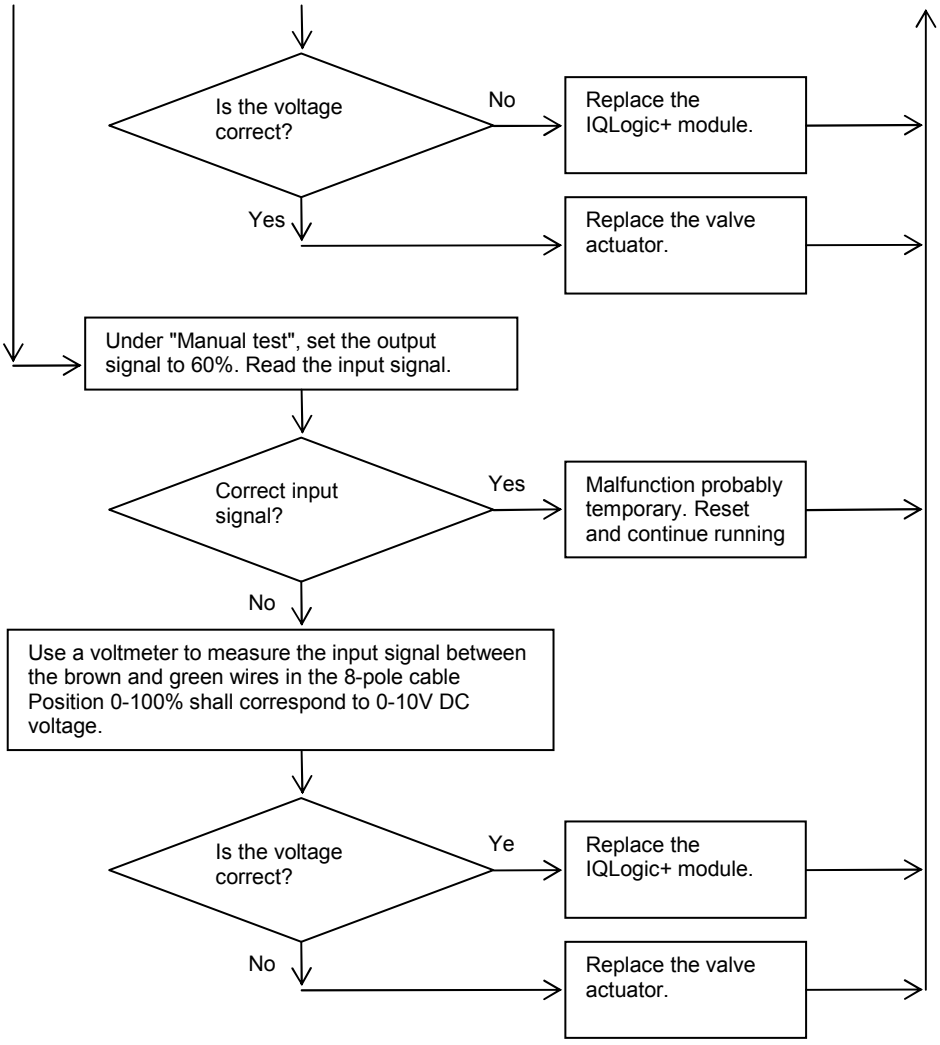
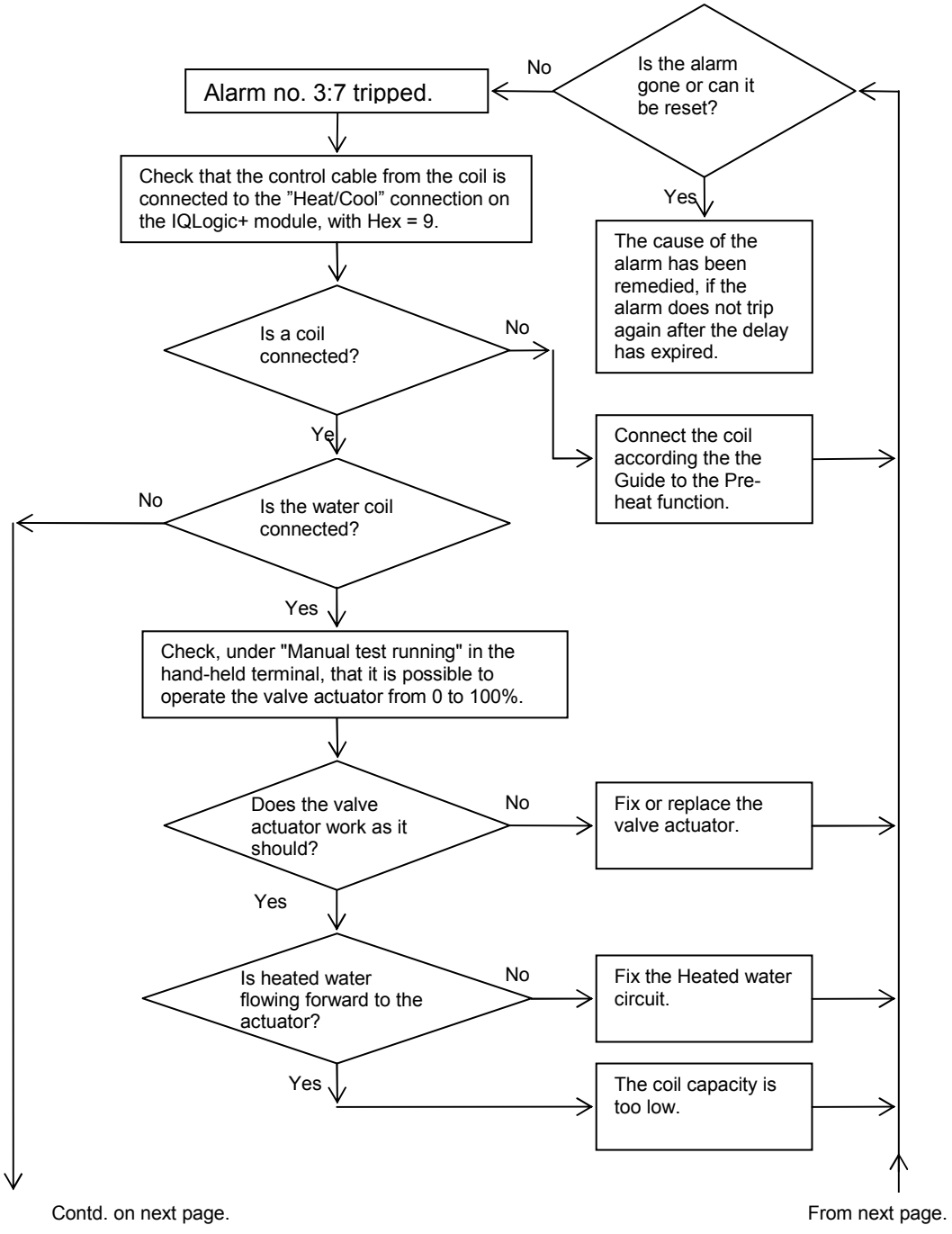
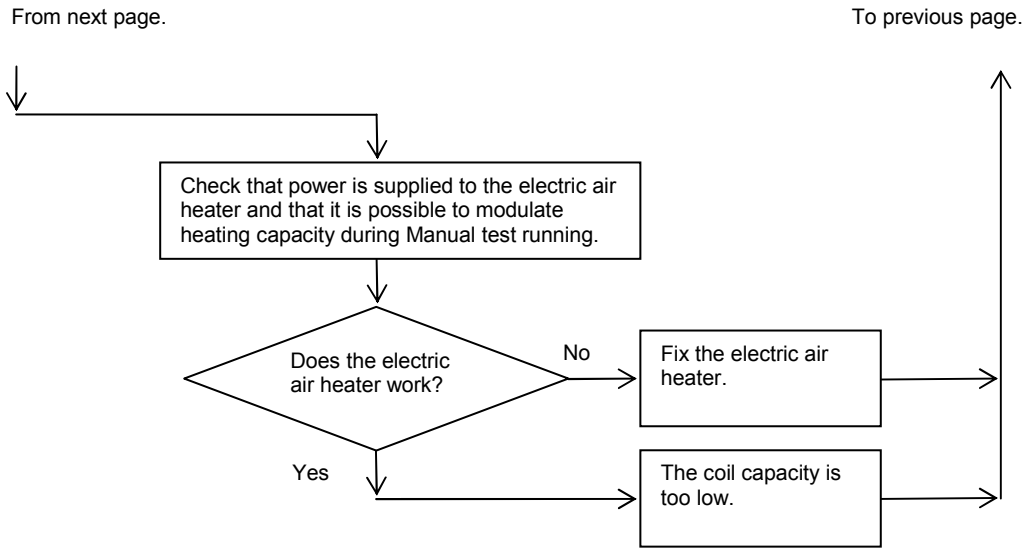


2.3.7. Alarm no. 3:7 "Pre-heat, temperature below set point"

The alarm is enabled when the Pre-heat function is activated.
The alarms trip when the temperature downstream of the pre-heat coil is below the relevant set point for more than 20 minutes. Check that the preset alarm limit is appropriate.





2.3.8. Alarm no. 3:8 "Pre-heat, alarm input tripped"

The alarm trips if the pre-heat function is activated and, depending on which function is selected, alarm is obtained on receiving a fault indication on the input.

Optional functions: "Alarm at open contact", "Alarm at closed contact" and "Contactor function". Contactor function means that the alarm input must close within 3 seconds after the Pump output has been energised. The function is used when a contactor is used for controlling the pump. An alarm is also initiated if the alarm input is closed when the pump should not be in operation.

Check the Pre-heat output and input under "Heat – Status".

2.4. Alarm group 4: EXTRA REGULATION SEQUENCE

2.4.1. Alarm no. 4:1 ”Extra regulation sequence, module no. E communication error"

The alarm for IQLogic+ module E is enabled when some Extra regulation sequence function is activated for heat or cooling.
The alarm trips if the control unit does not achieve correct communication with the module.

For troubleshooting see Alarm no. 3:1 above.

2.4.2. Alarm no. 4:2 "Extra regulation sequence, overheat, electric air heater tripped"

The alarm is only enabled when the Extra regulation sequence with electric air heater is activated.
The alarms trip when there is no connection between the wires for alarms in the communication cable from the electric air heater.
Contactor K1 is not energised.
The modular cable should be connected to the RJ45 connection marked ”Heat/Cool”.

For troubleshooting see Alarm no. 3:2 above.

2.4.3. Alarm no. 4:3 "Extra regulation sequence, frost guard alarm tripped"

The alarm is only enabled when Extra regulation sequence is activated and a type10 water coil is connected.
The alarm trips when the frost guard temp. sensor measures a temperature below the preset alarm limit.
The alarm limit is factory preset to 7°C.

For troubleshooting see Alarm no. 3:3 above.

2.4.4. Alarm no. 4:4 "Extra regulation sequence, frost guard sensor defective"

The alarm is only enabled when Extra regulation sequence is activated and a type10 water coil is connected.
The alarm trips when the control unit does not have communication with the frost guard temperature sensor or when the sensor measures temperatures outside the range of measurement (-55°C – 125°C).

For troubleshooting see Alarm no. 3:4 above.

2.4.5. Alarm no. 4:5 "Extra regulation sequence, valve monitoring tripped"

The alarm is only enabled when Extra regulation sequence is activated. a type 9 or 10 water coil is connected and Valve monitoring has been manually activated. The alarm trips when the feedback signal (input signal) from the valve actuator does not agree with the control signal. For a 0% output signal the feedback must be < 8% and for a 100% output signal >92% so that the alarm will not trip.

For troubleshooting see Alarm no. 3:6 above.

2.4.6. Alarm no. 4:6 "Extra regulation sequence 1, Alarm input tripped"

The alarm trips if extra regulation sequence 1 is activated and, depending on which alarm function is activated, alarm is obtained on receiving a fault indication on the input.

Optional functions: "Alarm at open contact", "Alarm at closed contact" and "Contactor function".
Contactor function means that the alarm input must close within 3 seconds after the Pump output has been energised. The function is used when a contactor is used for controlling the pump. An alarm is also initiated if the alarm input is closed when the pump should not be in operation.

2.4.7. Alarm no. 4:7 "Extra regulation sequence 1, temperature protection from communication error"

The alarm trips if the GOLD does not obtain inlet flow temperature in the chilled/heated water circuit from Nestor.

Check that the Nestor is correctly connected and that the temperature is displayed correctly in Nestor.

2.4.8. Alarm no. 4:9 "Extra regulation sequence 2, Communication error I/O module no. F”

The alarm trips if the control unit does not achieve correct communication with the IQlogic+ module.
The alarm is enabled only if the function is selected.

For troubleshooting see Alarm no. 3:1 above.

2.4.9. Alarm no. 4:10 "Extra regulation sequence 2, electrical heater over heat protection tripped"

The alarm trips if the function is activated, the electric air heater is connected and the overheat protection has tripped. The alarm trips if there is no connection between pins 3 and 4 in the 8-pin air heater cable (contactor K1 is not energised)
The modular cable should be connected to the RJ45 connection marked ”Heat/Cool”.

For troubleshooting. see Alarm no. 3:2 above.

2.4.10. Alarm no. 4:11 "Extra regulation sequence 2, Frost protection tripped"

The alarm trips if the function is activated and when Coil type 10 (water coil with frost protection sensor) is connected and the frost protection sensor measures a temperature below the preset alarm limit.

For troubleshooting, see Alarm no. 3:3 above.

2.4.11. Alarm no. 4:12 "Extra regulation sequence 2, Frost protection temperature sensor defective"

The alarm is only enabled when the function is activated and a type10 water coil is connected.
The alarm trips when the control unit does not have communication with the frost protection temperature sensor or when the sensor measures temperatures outside the range of measurement (-55°C – 125°C).

For troubleshooting, see Alarm no. 3:4 above.

2.4.12. Alarm no. 4:13 "Extra regulation sequence 2, valve monitoring tripped"

The alarm trips if cable with 2.2 kohms resistance is connected, the valve monitoring function is activated and the feedback signal from the valve actuator deviates from the output signal.
The alarm trips if the output signal is less than 3% and the feedback is more than 8% or if the output signal is more than 97% and the feedback is less than 92%.

For troubleshooting, see Alarm no. 3:6 above.

2.4.13. Alarm no. 4:14 "Extra regulation sequence 2, alarm input tripped"

The alarm trips if Extra regulation sequence 2 is selected and, depending on which alarm function is activated, alarm is obtained on receiving a fault indication on the input.

Optional functions: "Alarm at open contact", "Alarm at closed contact" and "Contactor function".
Contactor function means that the alarm input must close within 3 seconds after the Pump output has been energised. The function is used when a contactor is used for controlling the pump. An alarm is also initiated if the alarm input is closed when the pump should not be in operation.

2.5. Alarm group 5: RE-HEAT

2.5.1. Alarm no. 5:1 "Re-heat, overheated electric air heater tripped"

The alarm is only enabled when Re-heat with a type 1-6 or 11-15 coil, electric air heater is connected to the "Heat" connection on the IQLogic control unit.
The alarms trip when there is no connection between the wires for alarms in the communication cable from the electric air heater.
Contactor K1 is not energised.

For troubleshooting see Alarm no. 3:2 above.

2.5.2. Alarm no. 5:2 "Re-heat, frost guard alarm tripped"

The alarm is only enabled when Re-heat with a type 10 water coil with frost guard is connected to the "Heat" connection on the IQLogic control unit.
The alarm trips when the frost guard temp. sensor measures a temperature below the preset alarm limit.
The alarm limit is factory preset to 7°C.

For troubleshooting see Alarm no. 3:3 above.

2.5.3. Alarm no. 5:3 "Re-heat, frost guard sensor defective"

The alarm is only enabled when Re-heat with a type 10 water coil with frost guard is connected to the "Heat" connection on the IQLogic control unit.
The alarm trips when the control unit does not have communication with the frost guard temperature sensor or when the sensor measures temperatures outside the range of measurement (-55°C – 125°C).

For troubleshooting see Alarm no. 3:4 above.

2.5.4. Alarm no. 5:4 "Re-heat, valve monitoring tripped"

The alarm is only enabled when Re-heat with a type 10 water coil with frost guard is connected to the "Heat" connection on the IQLogic control unit and Valve monitoring has been manually activated. The alarm trips when the feedback signal (input signal) from the valve actuator does not agree with the control signal. For a 0% output signal the feedback must be < 8% and for a 100% output signal >92% so that the alarm will not trip.

For troubleshooting see Alarm no. 3:6 above.

2.6. Alarm group 6: XZONE MODULE NO. A

2.6.1. Alarm no. 6:1 "Xzone, I/O module no. A communication error"

The alarm for IQLogic+ module A is enabled when some Xzone function is activated for heat or cooling.
The alarm trips if the control unit does not achieve correct communication with the module.
For troubleshooting see Alarm no. 3:1 above.

2.6.2. Alarm no. 6:2 "Xzone, overheat, electric air heater tripped"

The alarm for IQLogic+ module A is enabled when some Xzone function is activated for heat or cooling.
The alarms trip when there is no connection between the wires for alarms in the communication cable from the electric air heater.
Contactor K1 is not energised.
The modular cable should be connected to the RJ45 connection marked ”Heat/Cool”.
For troubleshooting see Alarm no. 3:2 above.

2.6.3. Alarm no. 6:3 "Xzone, frost guard alarm tripped"

The alarm is only enabled when Xzone, heat is activated and a type 10 water coil is connected.
The alarm trips when the frost guard temp. sensor measures a temperature below the preset alarm limit.
The alarm limit is factory preset to 7°C.
For troubleshooting see Alarm no. 3:3 above.

2.6.4. Alarm no. 6:4 ”Xzone, frost protection temp. sensor defective”

The alarm is only enabled when Xzone, heat is activated and a type 10 water coil is connected.
The alarm trips when the control unit does not have communication with the frost guard temperature sensor or when the sensor measures temperatures outside the range of measurement (-55°C – 125°C).
For troubleshooting see Alarm no. 3:4 above.

2.6.5. Alarm no. 6:5 "Xzone, SA temperature sensor defective"

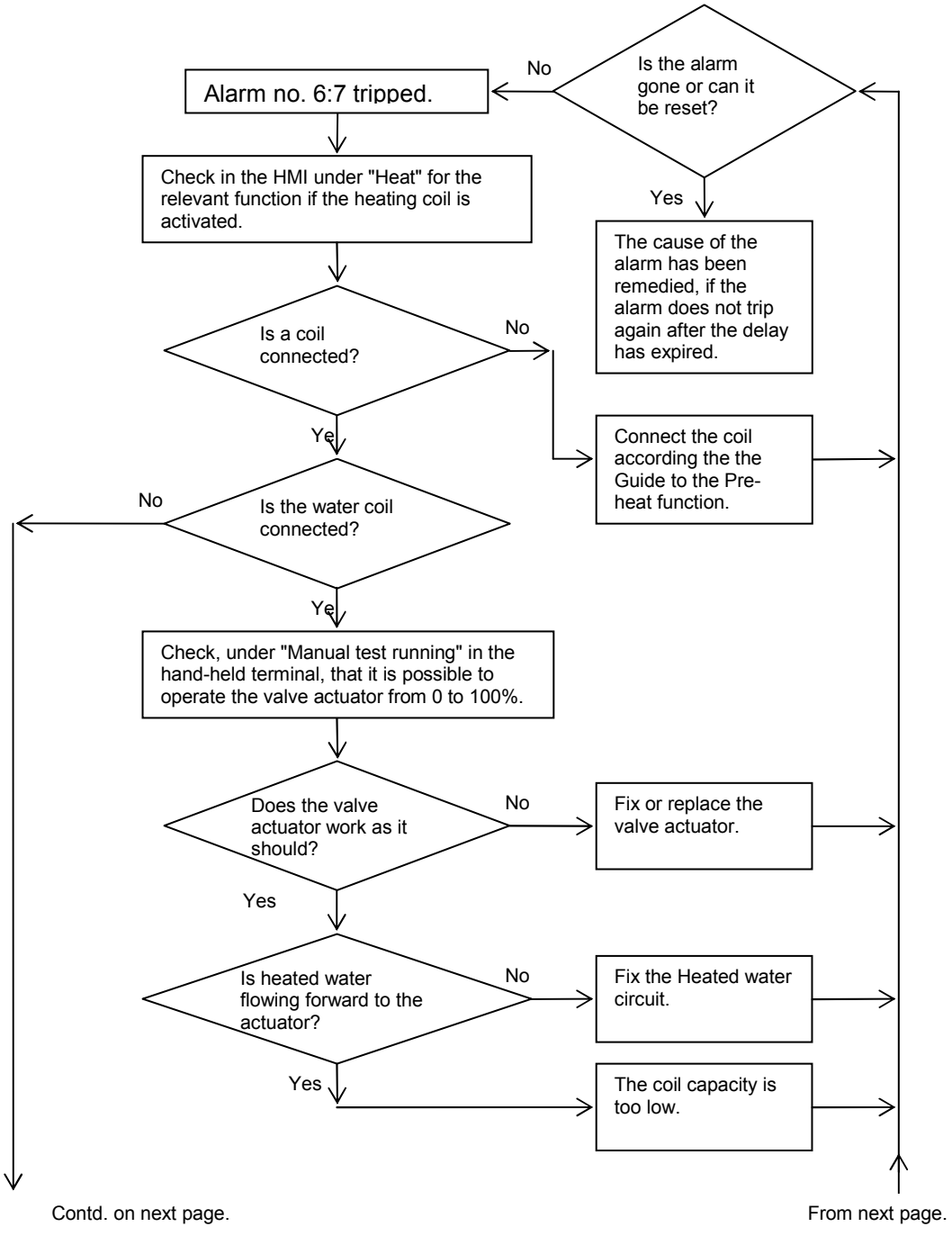
The alarm is enabled when the Xzone function is activated. The sensors are assumed to always be connected to the IQLogic+ module.
The alarms trip when the control unit does not have communication with the temperature sensor or when the sensor measures temperatures outside the range of measurement (-55°C – 125°C).
For troubleshooting see Alarm no. 3:5 above.

2.6.6. Alarm no. 6:6 "Xzone, heat valve monitoring tripped"

The alarm is only enabled when Xzone, Heat is activated, a type 10 water coil is connected and manual valve monitoring is activated. The alarm trips when the feedback signal (input signal) from the valve actuator does not agree with the control signal. For a 0% output signal the feedback must be < 8% and for a 100% output signal >92% so that the alarm will not trip.
For troubleshooting see Alarm no. 3:6 above.

2.6.7. Alarm no. 6:7 "Xzone, SA temperature below set point"

The alarm is enabled when the Xzone function is activated.
The alarms trip when the temperature downstream of the pre-heat coil is below the relevant set point for more than 20 minutes. Check that the preset alarm limit is appropriate.



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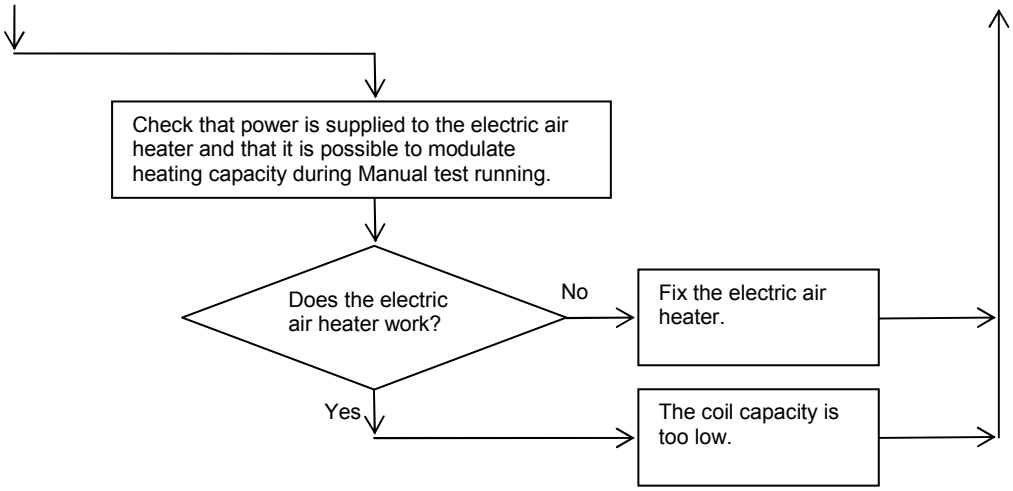
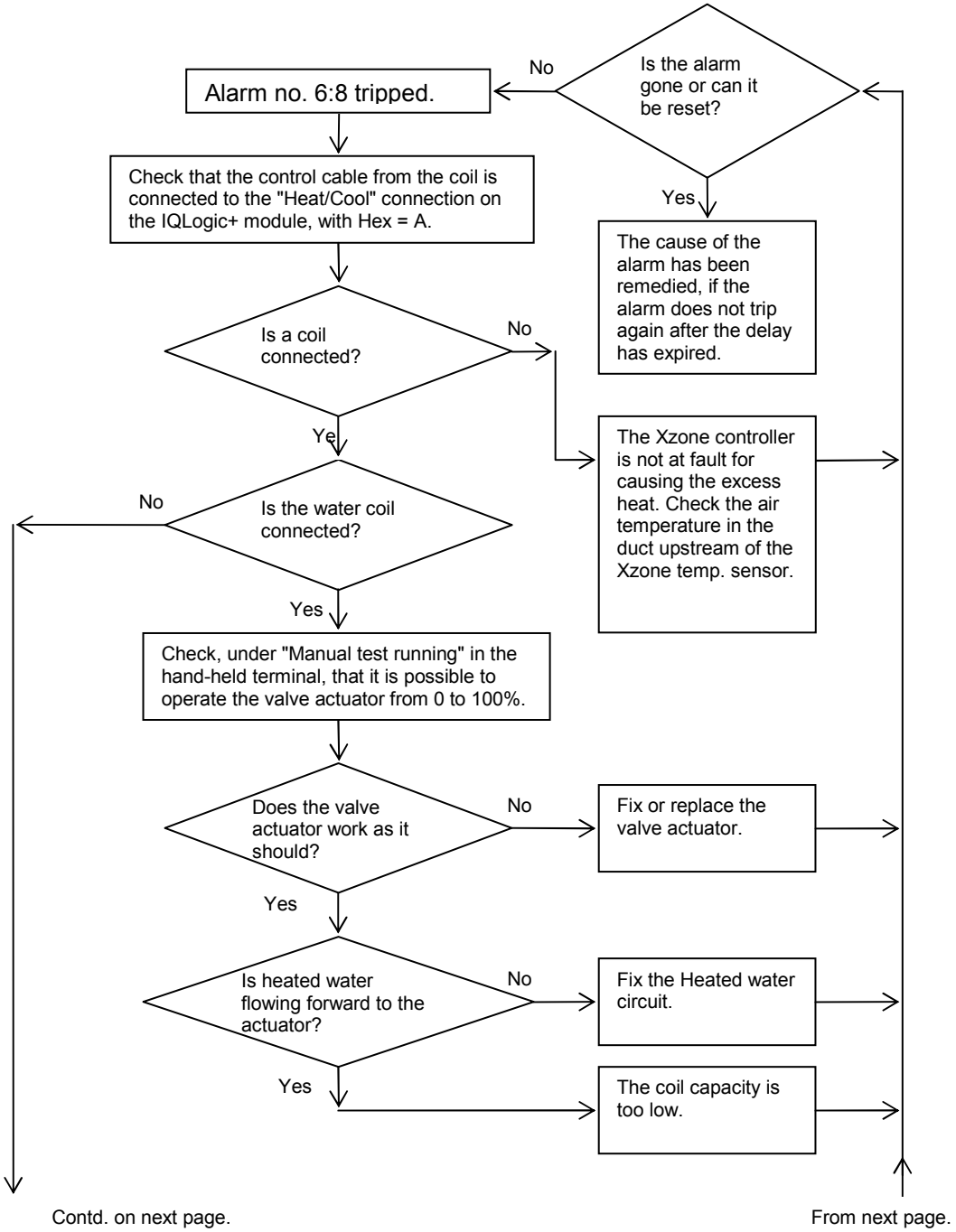


2.6.8. Alarm no. 6:8 "Xzone, SA temperature above set point"

The alarm is enabled when the Xzone function is activated.
The alarms trip when the temperature downstream of the pre-heat coil is above the relevant set point for more than 20 minutes. Check that the preset alarm limit is appropriate.



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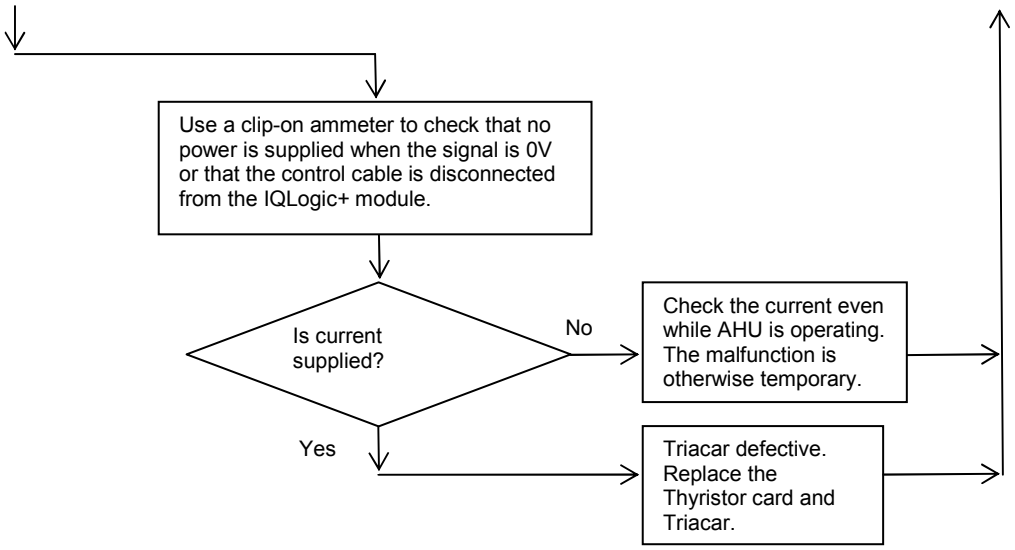


2.6.9. Alarm no. 6:9 "Xzone, heat alarm input tripped"

The alarm is enabled when the Xzone function is activated and, depending on which alarm function is activated, alarm is obtained on receiving a fault indication on the input.

Optional functions: "Alarm at open contact", "Alarm at closed contact" and "Contactor function". Contactor function means that the alarm input must close within 3 seconds after the Pump output has been energised. The function is used when a contactor is used for controlling the pump. An alarm is also initiated if the alarm input is closed when the pump should not be in operation.

2.7. Alarm group 7: XZONE MODULE NO. B

2.7.1. Alarm 7:1 "Xzone, I/O module no. B communication error"

The alarm for IQLogic+ module B is enabled when some Xzone function is activated for heat or cooling.
The alarm trips if the control unit does not achieve correct communication with the module.

For troubleshooting see Alarm no. 3:1 above.

2.7.2. Alarm no. 7:2 "Xzone, EA temperature sensor defective"

The alarm is enabled when the Xzone function is activated, ERS or Extract air regulation for the Xzone has been selected and no External room temperature sensor, communication, is connected. The EA sensors shall be connected to IQLogic+ module B.
The alarms trip when the control unit does not have communication with the temperature sensor or when the sensor measures temperatures outside the range of measurement (-55°C – 125°C).

For troubleshooting see Alarm no. 3:5 above.

2.7.3. Alarm no. 7:3 "Xzone, cool valve monitoring tripped"

The alarm is only enabled when Xzone,cool is activated, a type 9-10 water coil is connected and manual valve monitoring has been activated. The alarm trips when the feedback signal (input signal) from the valve actuator does not agree with the control signal. For a 0% output signal the feedback must be < 8% and for a 100% output signal >92% so that the alarm will not trip.

For troubleshooting see Alarm no. 3:6 above.

2.7.4. Alarm no. 7:4 "Xzone, EA temperature below set point”

The alarm is enabled when the Xzone function is activated.
The alarms trip when the temperature by an active extract air/room air sensor is below the relevant set point for more than 20 minutes. Check that the preset alarm limit is appropriate.

For troubleshooting see Alarm no. 6:7 above.

2.7.5. Alarm no. 7:5 "Xzone, cool alarm input 1 tripped"

The alarm is enabled when the Xzone function is activated and, depending on which alarm function is activated for alarm input 1, alarm is obtained on receiving a fault indication on the alarm input.

Optional functions: "Alarm at open contact", "Alarm at closed contact" and "Contactor function".
Contactor function means that the alarm input must close within 3 seconds after the Pump output has been energised. The function is used when a contactor is used for controlling the pump. An alarm is also initiated if the alarm input is closed when the pump should not be in operation.

2.7.6. Alarm no. 7:6 "Xzone, cool alarm input 2 tripped"

The alarm is enabled when the Xzone function is activated and, depending on which alarm function is activated for alarm input 2, alarm is obtained on receiving a fault indication on the alarm input.

Optional functions: "Alarm at open contact", "Alarm at closed contact" and "Contactor function".

Contactor function means that the alarm input must close within 3 seconds after the Pump output has been energised. The function is used when a contactor is used for controlling the pump. An alarm is also initiated if the alarm input is closed when the pump should not be in operation.

2.8. Alarm group 8: COOLING

2.8.1. Alarm no. 8:5 "Cool, valve monitoring tripped"

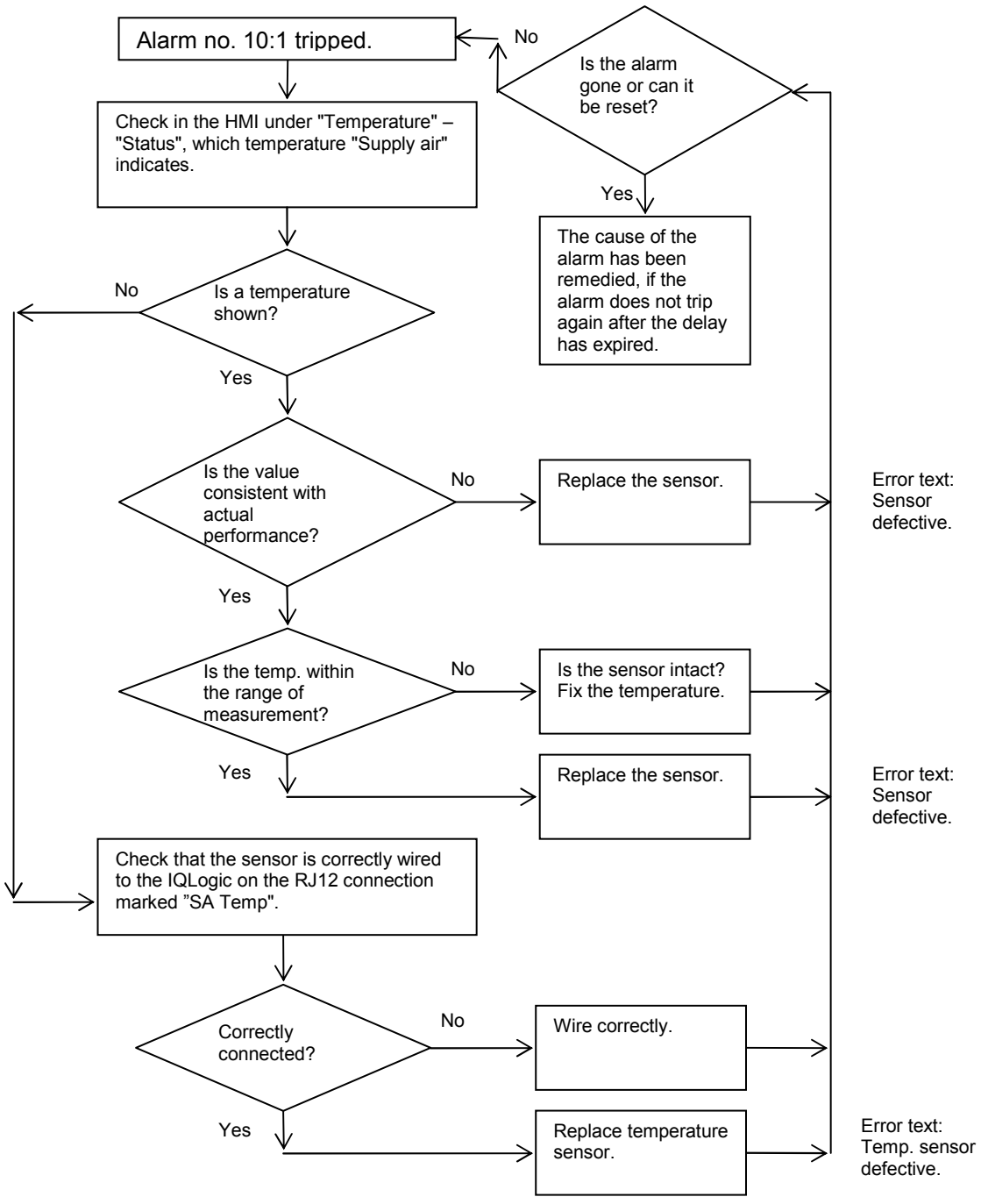
The alarm is only enabled when a type 9-10 chilled water coil is connected to the "Cool" connection on the IQLogic control unit and Valve monitoring has been manually activated. The alarm trips when the feedback signal (input signal) from the valve actuator does not agree with the control signal. For a 0% output signal the feedback must be < 8% and for a 100% output signal >92% so that the alarm will not trip.

For troubleshooting see Alarm no. 3:6 above.

2.9. Alarm group 10: AHU TEMPERATURE SENSOR

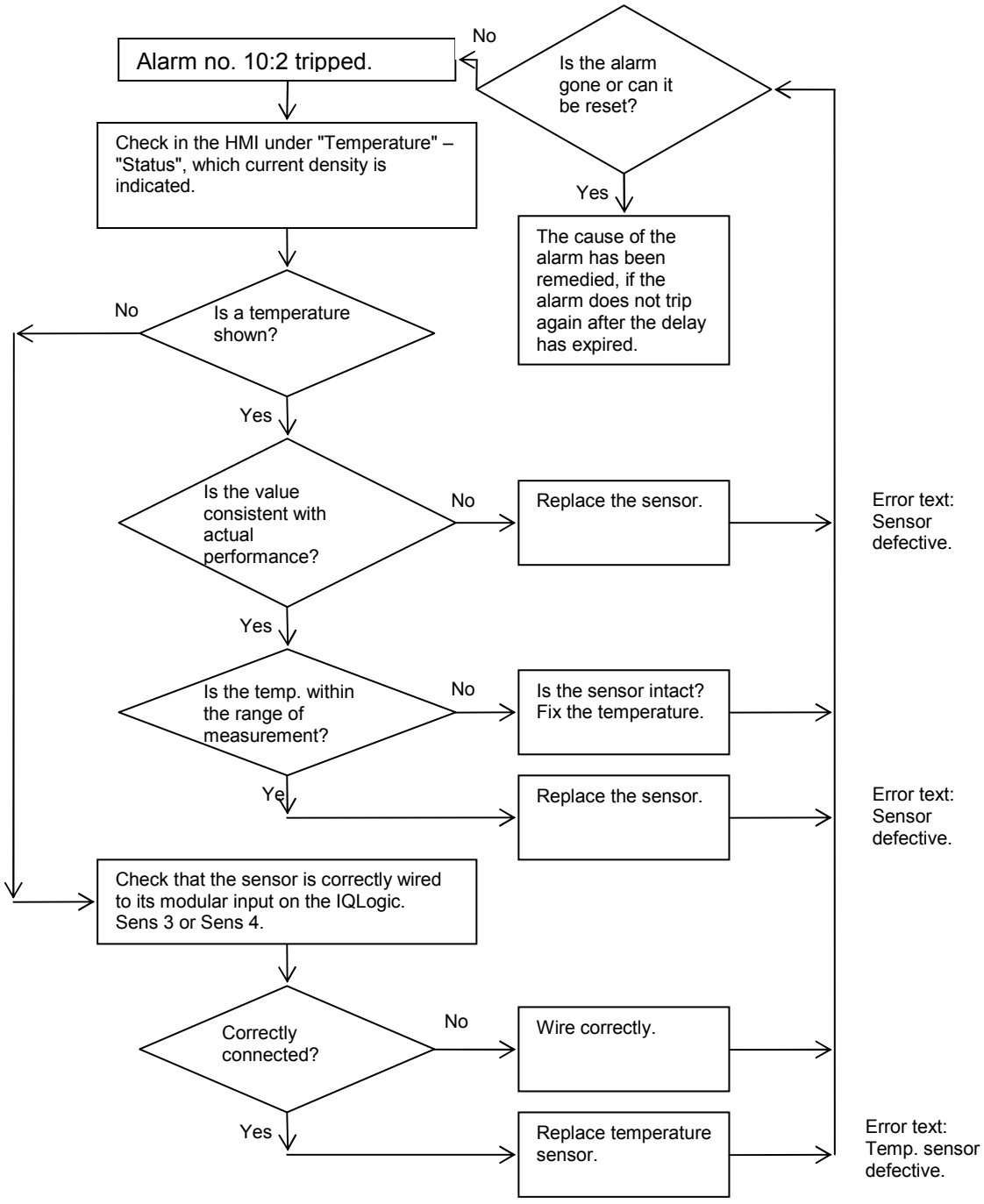
2.9.1. Alarm no. 10:1 "Supply air temperature sensor defective"

The alarm is always enabled. The alarms trip when the control unit does not have communication with the temperature sensor or when the sensor measures temperatures outside the range of measurement (-55°C – 125°C).



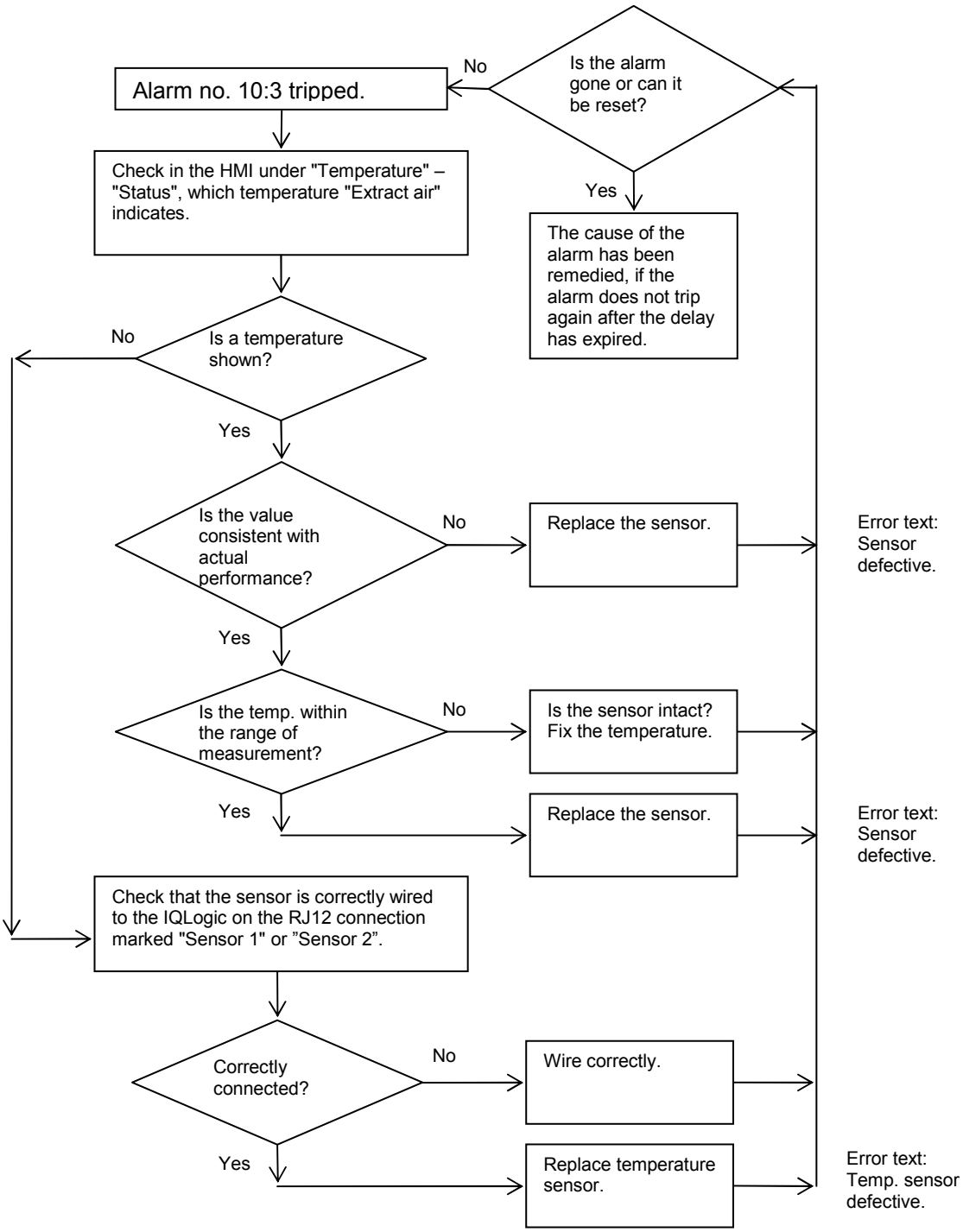
2.9.2. Alarm no. 10:2 "Supply air temperature sensor for density compensation defective"

The alarm is enabled in the GOLD PX and CX, which presupposes that the sensors are connected.
The alarm trips when the control unit does not have communication with the temperature sensor or when the sensor measures temperatures outside the range of measurement (-55°C – 125°C).



2.9.3. Alarm no. 10:3 "Extract air temperature sensor defective"

The alarm is enabled when ERS, ORE or Extract air temperature regulation is selected. The alarms trip when the control unit does not have communication with the extract air temperature sensor in the air handling unit or when the sensor measures temperatures outside the range of measurement (-55°C – 125°C).



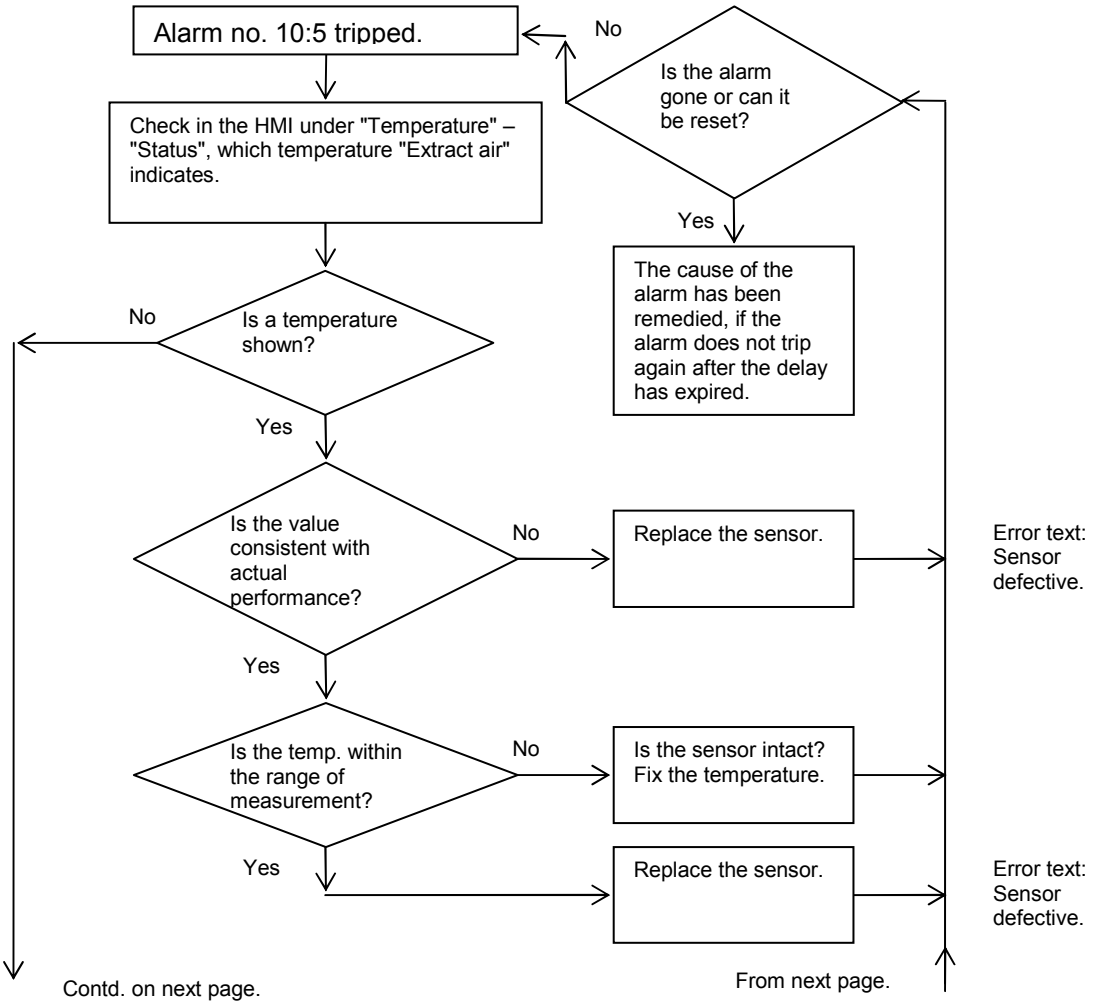
2.9.4. Alarm no. 10:4 "Extract air temperature sensor for density compensation defective"

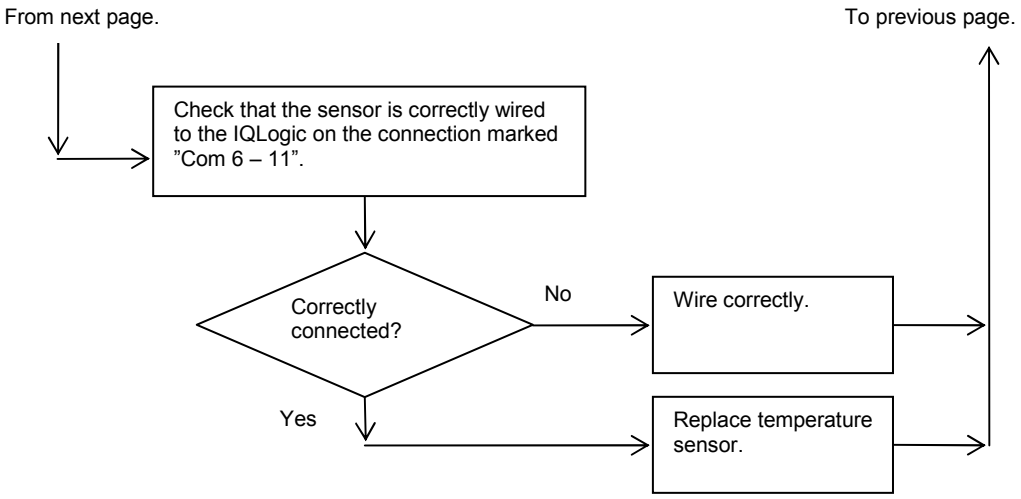
The alarm is enabled in the GOLD PX and CX, which presupposes that the sensors are connected.
The alarm trips when the control unit does not have communication with the temperature sensor or when the sensor measures temperatures outside the range of measurement (-55°C – 125°C).

For troubleshooting see Alarm no. 10:2 above.

2.9.5. Alarm no. 10:5 "Extract air temperature sensor for defrost defective"

The alarm is enabled in the GOLD PX and CX, which presupposes that the combined Humidity/temperature sensor is connected.
The alarms trip when the control unit does not have communication with the humidity/temperature sensor in the air handling unit or when the sensor measures temperatures outside the range of measurement (-55°C – 125°C).





2.9.6. Alarm no. 10:6 "Extract air temperature sensor for density compensation in SD AHU defective"

The alarm is enabled for GOLD SD SA+EA air handling units, which presupposes that the extract air temperature sensor for density compensation is connected.
The alarms trip when the control unit does not have communication with the humidity/temperature sensor in the air handling unit or when the sensor measures temperatures outside the range of measurement (-55°C – 125°C).

For troubleshooting see Alarm no. 10:5 above.

2.9.7. Alarm no. 10:7 "Extract air duct temperature sensor defective"

The alarm trips if the IQlogic control unit does not achieve correct communication with the extract air duct sensor.

For troubleshooting, see Alarm no. 10:5

2.9.8. Alarm no. 10:10 "Outdoor temperature sensor defective"

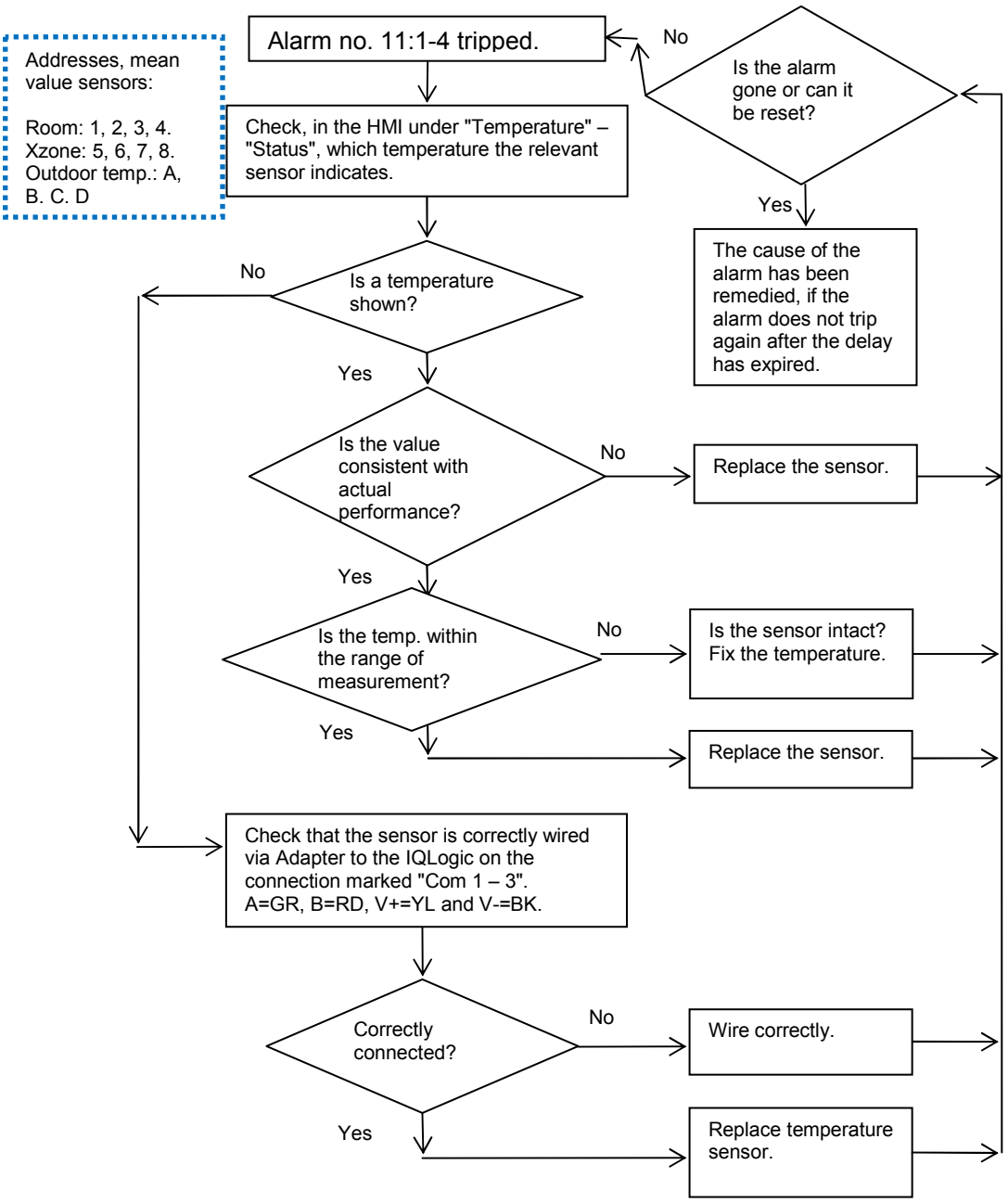
The alarm is always enabled. The alarms trip when the control unit does not have communication with the temperature sensor or when the sensor measures temperatures outside the range of measurement (-55°C – 125°C).

For troubleshooting see Alarm no. 10:3 above.

2.10. Alarm group 11: AHU MIN/MAX/MEDIUM TEMPERATURE SENSORS

2.10.1. Alarm no. 11:1-4 ”Room temperature sensors nos. 1 – 4 defective”

The alarms are enabled when corresponding External room sensor 1 to 4 is selected ON. The alarms trip when the control unit does not have communication with the selected room sensor or when the sensor measures temperatures outside the range of measurement (-55°C – 125°C). The room sensor's address selector switch must be set to the corresponding number 1-4.



2.10.2. Alarm no. 11:5-8 "Xzone, room temperature sensors nos. 5 - 8 defective"

The alarms are enabled when corresponding Xzone room sensors 5 to 8 are selected On. The alarms trip when the control unit does not have communication with the selected Xzone room sensor or when the sensor measures temperatures outside the range of measurement (-55°C – 125°C). The Xzone room sensor's address selector switch must be set to the corresponding number 5-8.

For troubleshooting see Alarm nos. 11:1-4 above.

2.10.3. Alarm nos. 11:9 – 12 ”Outdoor temperature sensors A – D defective”

The alarms are enabled when corresponding External outdoor air sensor A to D is selected ON. The alarms trip when the control unit does not have communication with the selected outdoor air sensor or when the sensor measures temperatures outside the range of measurement (-55°C – 125°C). The External outdoor sensor's address selector switch must be set to the corresponding number 5-8.

For troubleshooting see Alarm nos. 11:1-4 above.

2.10.4. Alarm no. 11:13 "Room temperature via communication, communication error"

The alarm is enabled when the External temperature sensor, Room temperature from communication, is selected ON. The alarm trips when the control unit does not receive new room temperature readings via communication or when the transmitted temperature readings are outside the range of measurement (-55°C – 125°C). A new value via communication must be received within 300 seconds, otherwise the alarm will trip.

Check in the HMI under "Temperature" – "Status", that a correct "Regulation summation, extract air" reading is shown.
If 0.0°C is shown, there is probably a problem with communication so that no value is transmitted.

2.10.5. Alarm no. 11:14 "Xzone, room temperature via communication, communication error"

The alarm is enabled when the External temperature sensor, Xzone, room temperature from communication, is selected ON.
The alarm trips when the control unit does not receive new room temperature readings via communication or when the transmitted temperature readings are outside the range of measurement (-55°C – 125°C).
A new value via communication must be received within 300 seconds, otherwise the alarm will trip.

Check in the HMI under "Temperature" – "Status", that a correct "Regulation summation, Xzone, extract air" reading is shown.
If 0.0°C is shown, there is probably a problem with communication so that no value is transmitted.

2.10.6. Alarm no 11:15 "Outdoor temperature via communication, communication error"

The alarm is enabled when the External temperature sensor, Outdoor temperature from communication, is selected On. The alarm trips when the control unit does not receive new room temperature readings via communication or when the transmitted temperature readings are outside the range of measurement (-55°C – 125°C). A new value via communication must be received within 300 seconds, otherwise the alarm will trip.

Check in the HMI under "Temperature" – "Status", that a correct "Regulation summation, outdoor air" reading is shown.
If 0.0°C is shown, there is probably a problem with communication so that no value is transmitted.

2.11. Alarm group 12: AHU TEMPERATURE DEVIATION

2.11.1. Alarm no. 12:1 ”Supply air temperature below set point”.

The alarm is always enabled.
The alarms trip when the supply air temperature is below the relevant set point for more than 20 minutes.
Check in the HMI under "Alarm priority", that the temperature alarm limit is appropriate.

For troubleshooting see Alarm no. 6:7 above.

2.11.2. Alarm no. 12:2 "Supply air temperature above set point".

The alarm is always enabled.
The alarms trip when the supply air temperature is above the relevant set point for more than 20 minutes.
Check in the HMI under "Alarm priority", that the temperature alarm limit is appropriate.

For troubleshooting see Alarm no. 6:8 above.

2.11.3. Alarm no. 12:6 "Extract air temperature below alarm limit"

The alarm is always enabled.
The alarms trip when the extract air temperature is below the preset alarm limit for more than 20 minutes.

Check in the HMI, under "Alarm priority" – ”Temperature, alarm limits” that ”Extract air below alarm limit” is preset to the appropriate alarm limit.

Check the reason why the extract air temperature is too low.

2.11.4. Alarm no. 12:11 ”Temperature monitor below alarm limit”

The alarm is enabled when the Temperature monitor function is activated under "Alarm priority".
The alarms trip when the ”Supply air, density” temperature is below the preset alarm limit for more than the preset delay.

Check in the HMI under "Alarm priority" – "Temperature monitor", which alarm limit is preset.

Check the reason why the extract air temperature is too low.

2.12. Alarm group 13: HUMIDITY / VOC

2.12.1. Alarm no. 13:1 "Humidification, I/O module no. 4 communication error"

The alarm for IQLogic+ module 4 is enabled when some Humidification function is activated.
The alarm trips if the control unit does not achieve correct communication with the module.

For troubleshooting see Alarm no. 3:1 above.

2.12.2. Alarm no. 13:12 "VOC sensor internal communication error"

The alarm of the VOC sensor is enabled when the ”VOC sensor” function is activated.
The alarm trips if the VOC sensor does not achieve correct communication with the VOC measurement element via its internal communication.

Replace the sensor.

2.12.3. Alarm no. 13:13 "VOC sensor, internal error"

The alarm is enabled when the "VOC sensor" function is activated and the sensor reports, via communication, that it has an internal error.

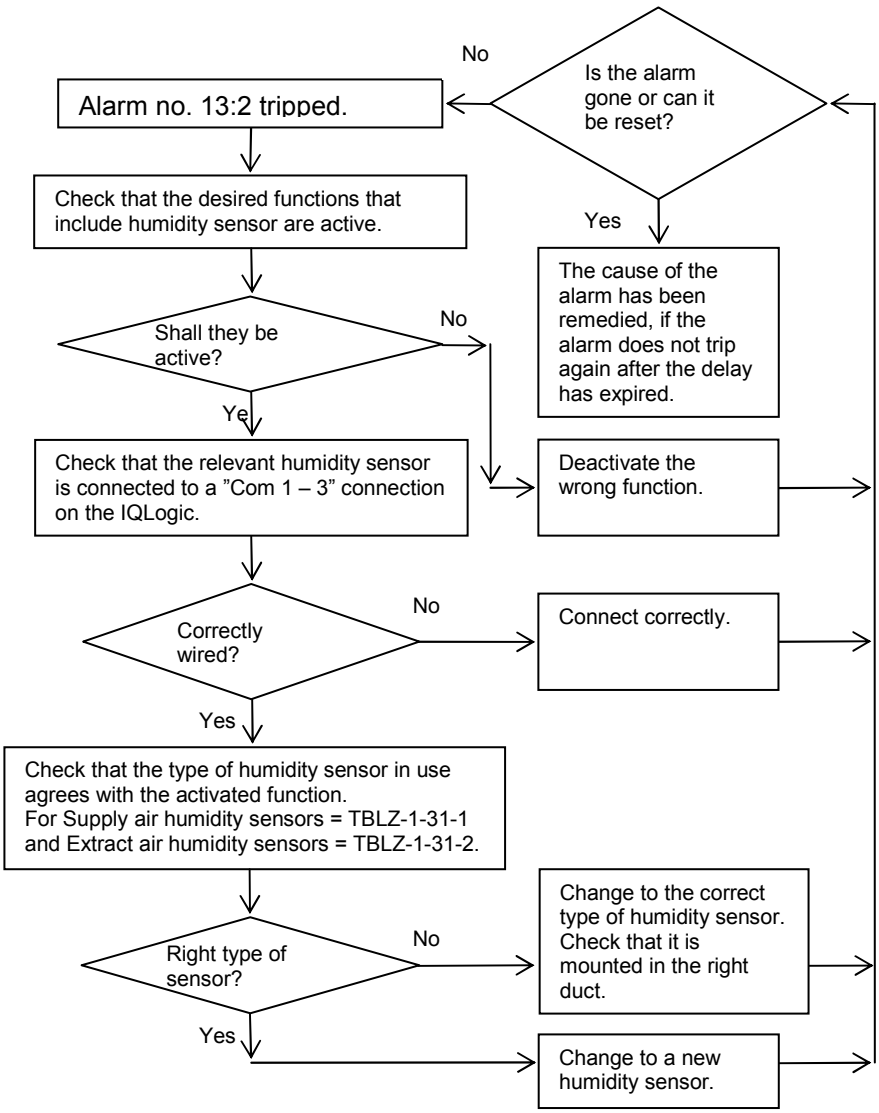
Disconnect the VOC sensor for 1 minute to reset the internal alarm.
If the alarm remains, replace the VOC sensor.

2.12.4. Alarm no. 13:14 "VOC sensor, level below/above set point alarm limit"

The alarm is enabled when the "VOC sensor" function is activated and the VOC level (ppm) exceeds or is below the preset limits in the HMI under "air handing – VOC”.

2.12.5. Alarm no. 13:2 "Supply air humidity sensor defective"

The alarm is enabled when the Humidification 0-10V, Dehumidification or ”SA sensor only” is selected active.
The alarms trip when the control unit does not obtain communication with the supply air humidity sensor.



2.12.6. Alarm no. 13:3 "Extract air humidity sensor defective"

The alarms are enabled when the ”EA Humidification”, ”AYC Cool, dew point compensation” or ”EA sensor only” is selected active.
The alarms trip when the control unit does not obtain communication with the extract air humidity sensor.

For troubleshooting see Alarm no. 13:2 above.

2.12.7. Alarm no. 13:9 ”Humidifier, alarm output tripped”

The alarm is enabled when the Humidification alarm functions are selected for any of the "Alarm on open circuit", "Alarm on closed circuit" or "Contactor function" functions.

The humidification alarm becomes optional when the Humidification function is selected as On/off or 0-10V.

The alarms trip when the input on IQLogic+ module 4, is ”Open”, ”Closed” or when contactor feedback is not received.

Check the function on the external connection.

2.12.8. Alarm no. 13:11 "VOC sensor communication error"

The alarm of the VOC sensor is enabled when the ”VOC sensor” function is activated.
The alarm trips if the control unit does not achieve correct communication with the module.

The VOC sensor shall be connected to "Com 1 – 3" on the IQLogic control unit.
If the malfunction remains, with correctly connected sensor, replace the VOC sensor

2.12.9. Alarm no. 13:12 "VOC sensor defective"

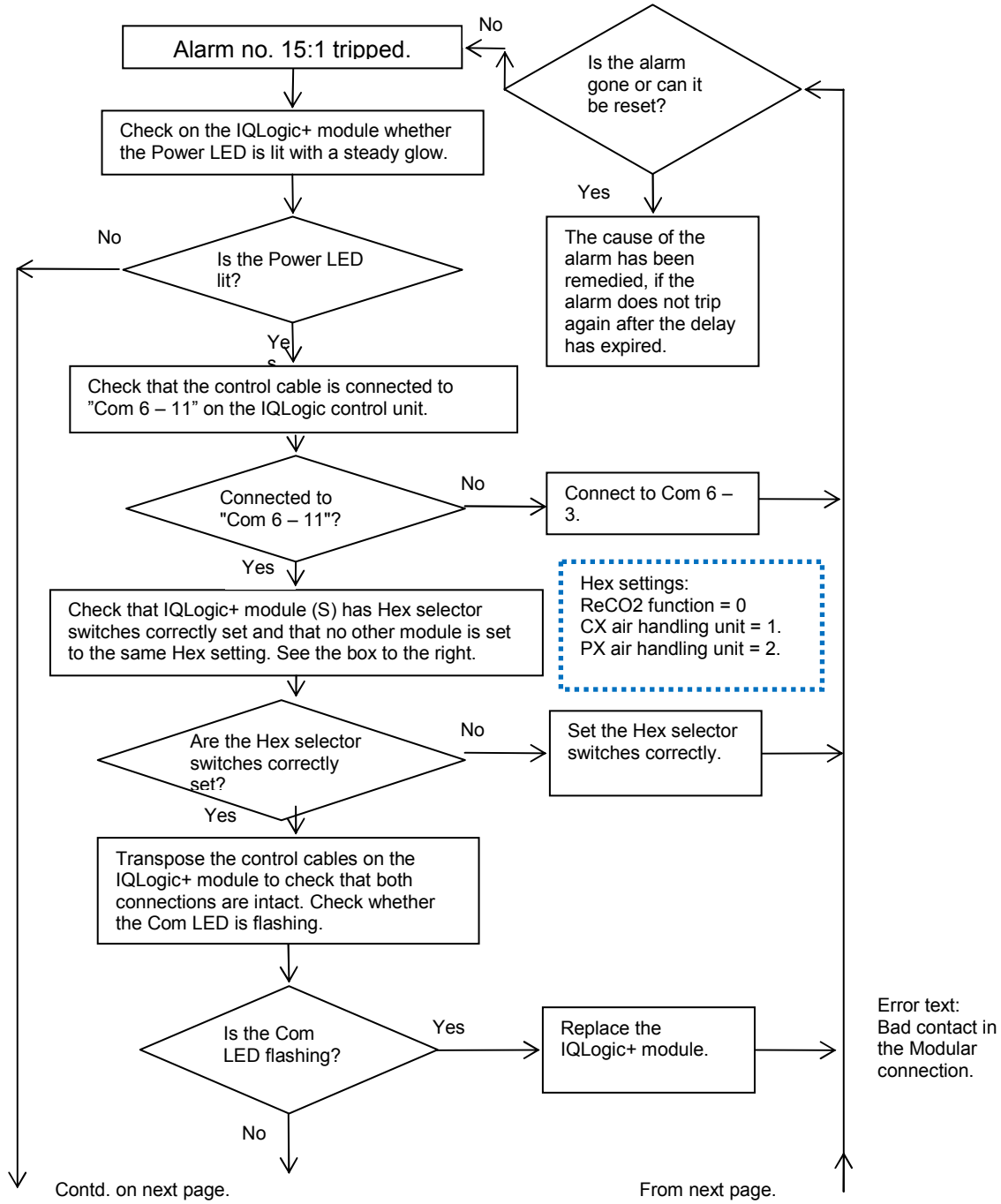
The alarm is enabled when the "VOC sensor" function is activated and the sensor reports, via communication, that it has an internal malfunction.

Disconnect the VOC sensor for one minute to reset the internal alarm.
If the alarm remains, replace the VOC sensor.

2.13. Alarm group 15: PLATE HEAT EXCHANGER

2.13.1. Alarm no. 15:1 "Plate heat exchanger, I/O module no. 2 communication error"

The alarm of IQLogic+ module 2 (S) is enabled when the GOLD PX unit is selected.
The alarm trips if the control unit does not achieve correct communication with the module.



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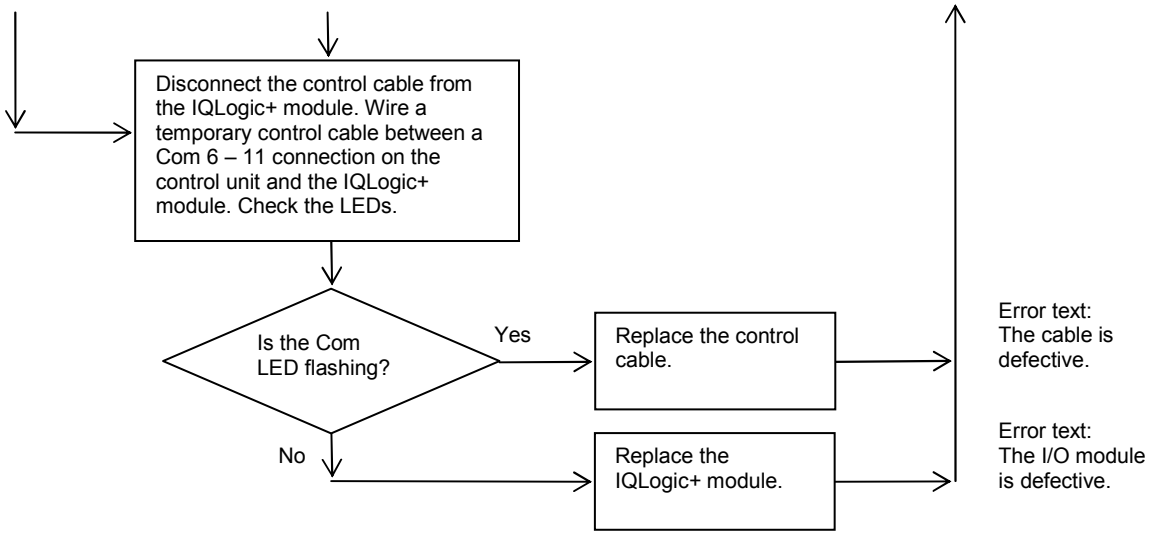
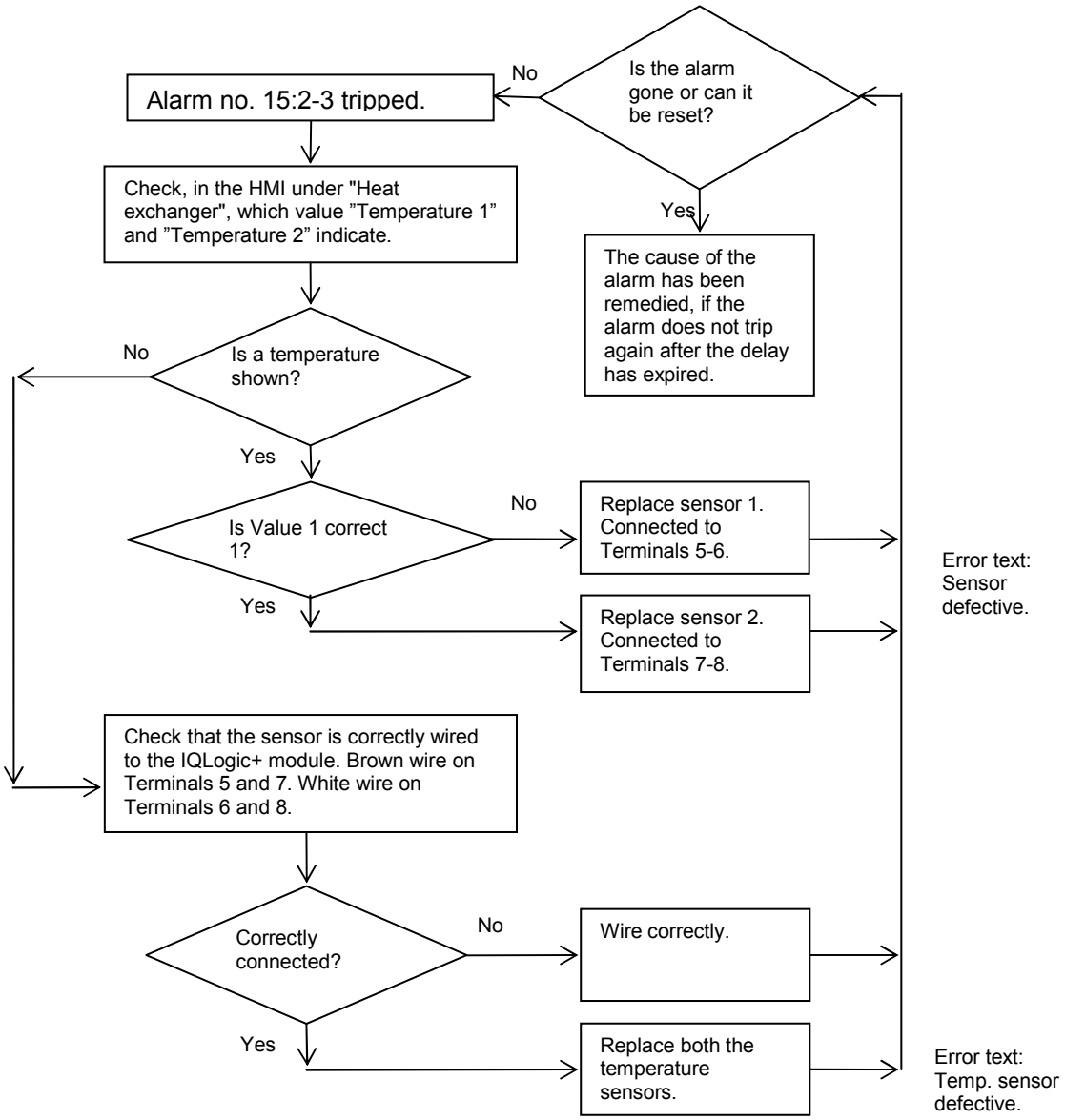


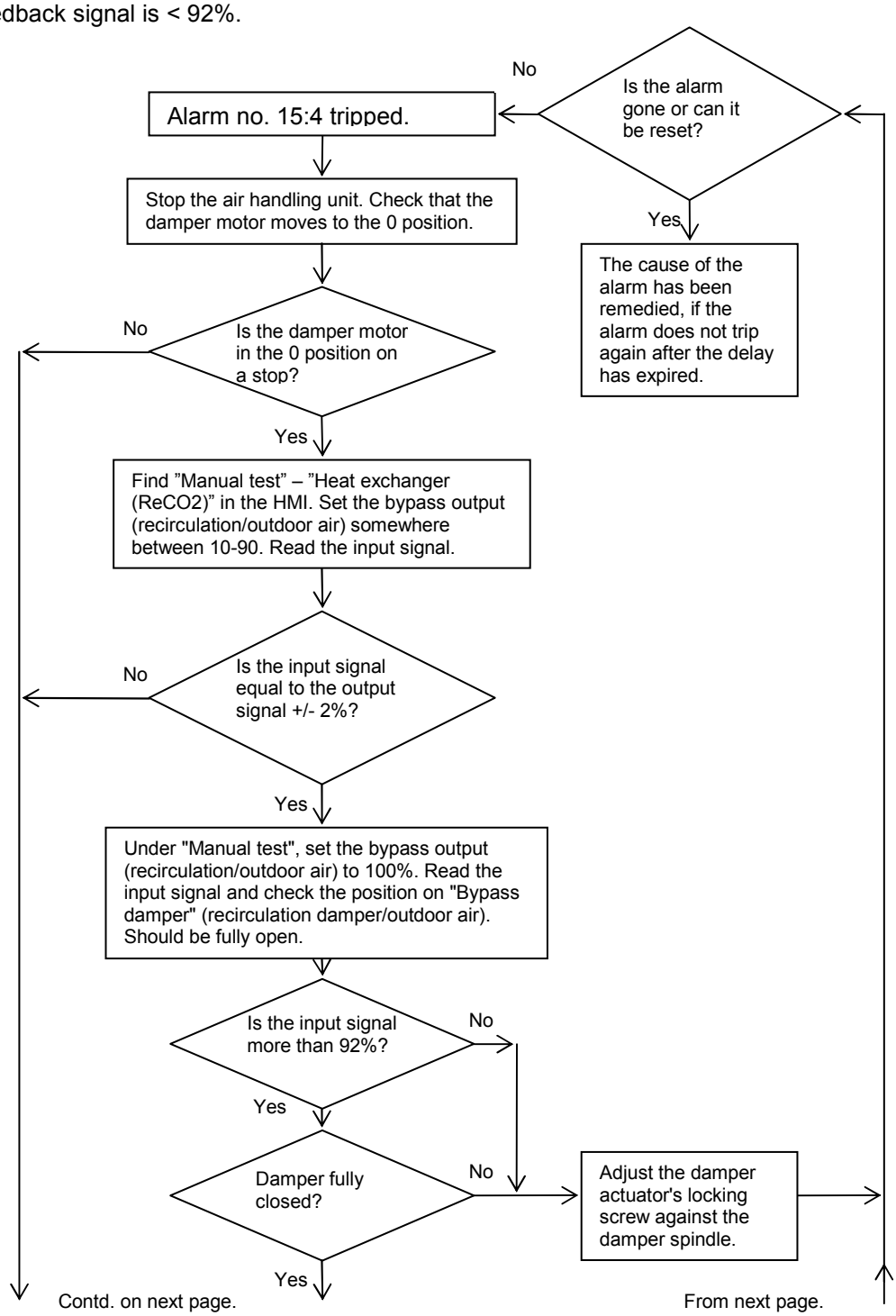
2.13.2. Alarm no. 15:2-3 "Plate heat exchanger temp. sensor no. 1-2 defective"

The alarms are enabled when a GOLD PX unit is selected.
The alarms trip when the control unit does not have communication with the corresponding frost guard temperature sensor in the heat exchanger cube or when the sensor measures temperatures outside the range of measurement (-55°C – 125°C).



2.13.3. Alarm no. 15:4 "Plate heat exchanger, damper monitoring tripped"

The alarms are enabled when a GOLD PX unit is selected.
The alarm trips when the feedback signal (input signal) from the bypass damper motor does not agree with the control signal.
The alarm trips If the control signal is 0-2% and the feedback signal is > 8% and if the control signal is 97-100% and the feedback signal is < 92%.



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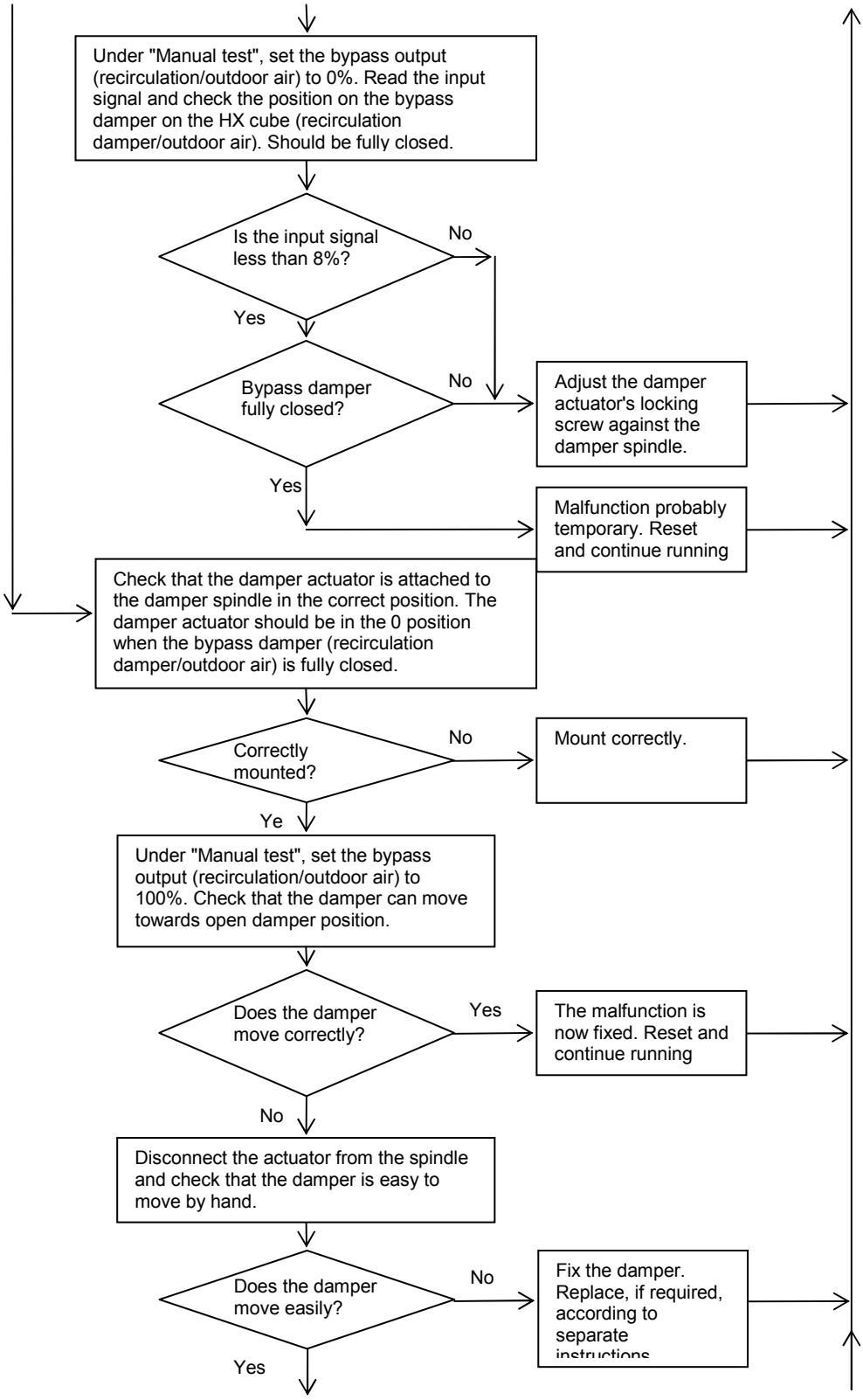

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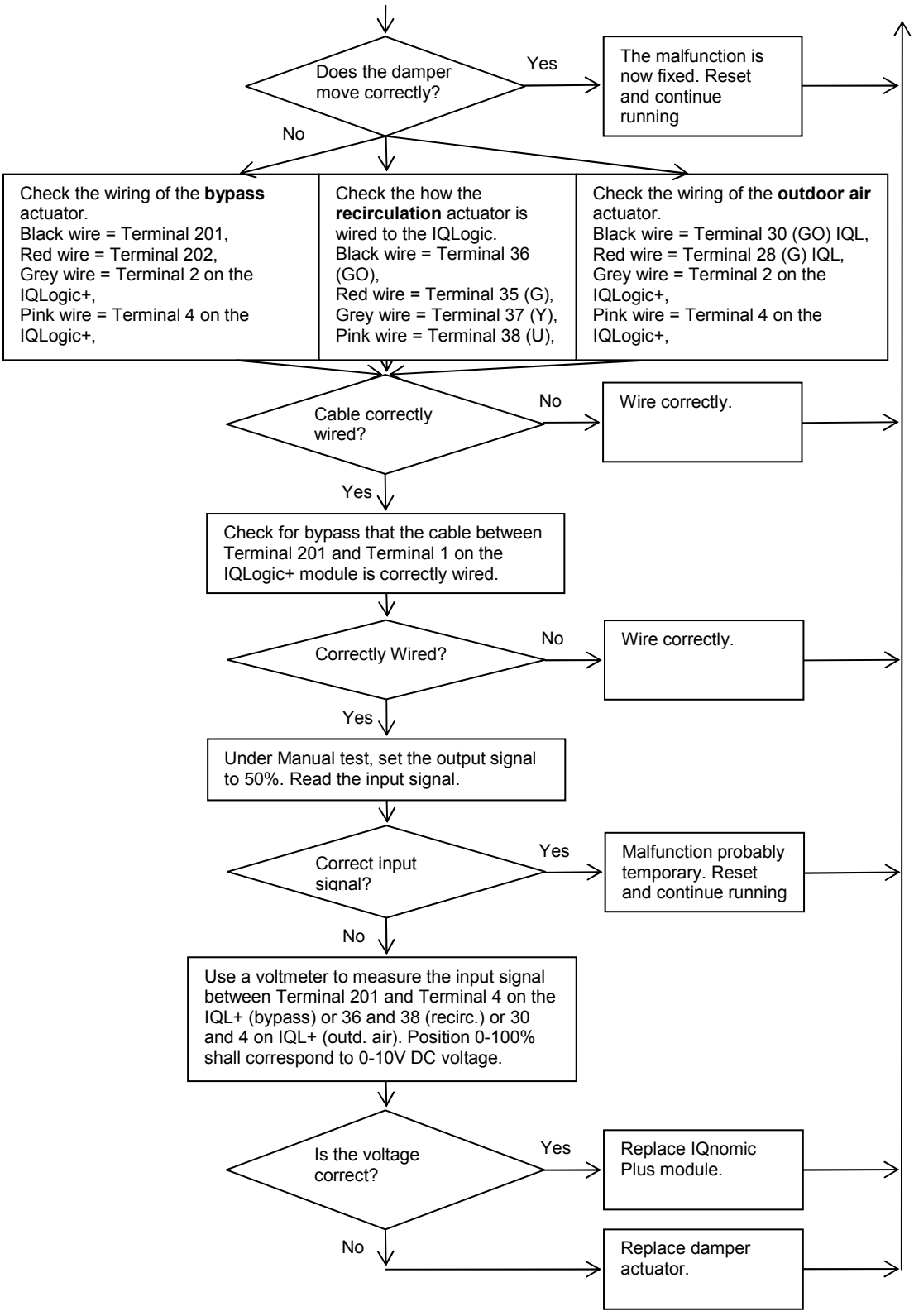


2.13.4. Alarm no. 15:7 "Plate heat exchanger, I/O module no. 3 communication error"

The alarm is enabled when a GOLD PX unit with RECOfrost defrosting function is selected.
The alarm trips if the control unit does not achieve correct communication with IQlogic+ module no. 3.

For troubleshooting, see Alarm no. 15:1

2.13.5. Alarm no. 15:8 "Plate heat exchanger, Bypass damper monitoring tripped"

The alarm is enabled when a GOLD PX unit with RECOfrost defrost function is selected, damper monitoring is selected as active and the signal feedback does not indicate correct position.
The alarm trips if the output signal is less than 3% and the feedback is more than 15% or if the output signal is more than 97% and the feedback is less than 85%.

On an output signal of 10Vdc on Terminal 4 on the IQlogic+ module the bypass damper is fully open.

For troubleshooting, see Alarm no. 15:4

2.13.6. Alarm no. 15:9 "Plate heat exchanger, Damper no. 1 monitoring tripped"

The alarm is enabled when a GOLD PX unit with RECOfrost defrost function is selected, damper monitoring is selected as active and the signal feedback does not indicate correct position.
The alarm trips if the output signal is less than 3% and the feedback is more than 15% or if the output signal is more than 97% and the feedback is less than 85%.

On an output signal of 10Vdc on Terminal 8 on the IQlogic+ module the damper is fully closed.

For troubleshooting, see Alarm no. 15:4

2.13.7. Alarm no. 15:10 "Plate heat exchanger, Damper no. 2 monitoring tripped"

The alarm is enabled when a GOLD PX unit with RECOfrost defrost function is selected, damper monitoring is selected as active and the signal feedback does not indicate correct position.
The alarm trips if the output signal is less than 3% and the feedback is more than 15% or if the output signal is more than 97% and the feedback is less than 85%.

On an output signal of 10Vdc on Terminal 6 on the IQlogic+ module the damper is fully closed.

For troubleshooting, see Alarm no. 15:4

2.13.8. Alarm no. 15:11 "Plate heat exchanger, I/O module no. 3 communication error"

The alarm is enabled when a GOLD PX unit with "standard pressure" defrost function is selected.
The alarm trips if the control unit does not achieve correct contact with IQlogic+ module no. 3.

For troubleshooting, see Alarm no. 3:1

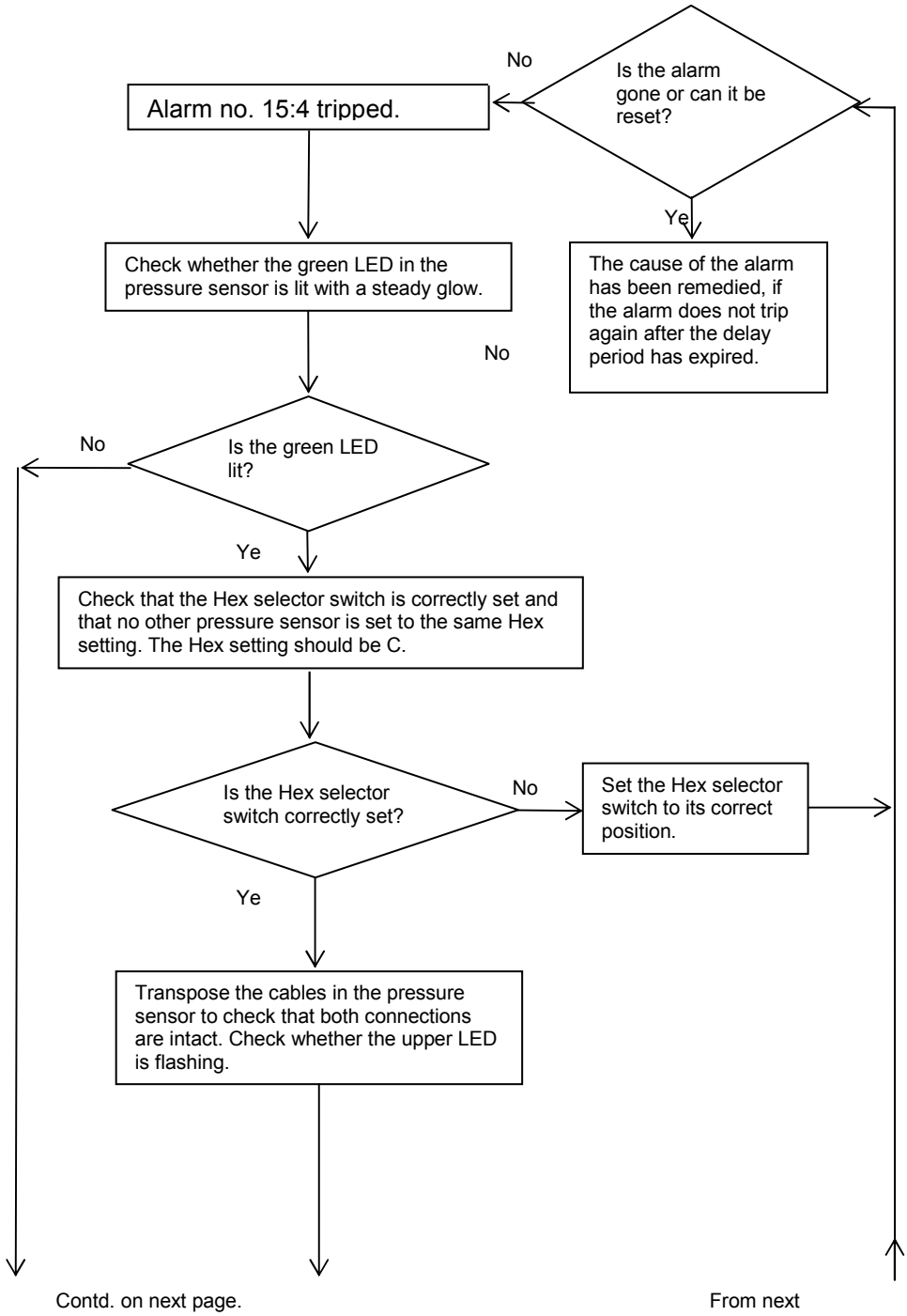
2.13.9. Alarm no. 15:12 "Plate heat exchanger, Bypass damper monitoring tripped"

The alarm is enabled when the GOLD PX unit with Standard pressure defrost function is selected, damper monitoring is selected as active and the signal feedback does not indicate correct position.
The alarm trips if the output signal is less than 3% and the feedback is more than 15% or if the output signal is more than 97% and the feedback is less than 85%.

For troubleshooting, see Alarm no. 15:4

2.13.10. Alarm no. 15:14 "Plate heat exchanger, defrost pressure sensor no. C communication error"

The alarm is enabled when a GOLD PX unit with RECOfrost or Standard pressure defrost function is selected. The alarm trips if the control unit does not achieve correct communication with the HEX C pressure sensor.



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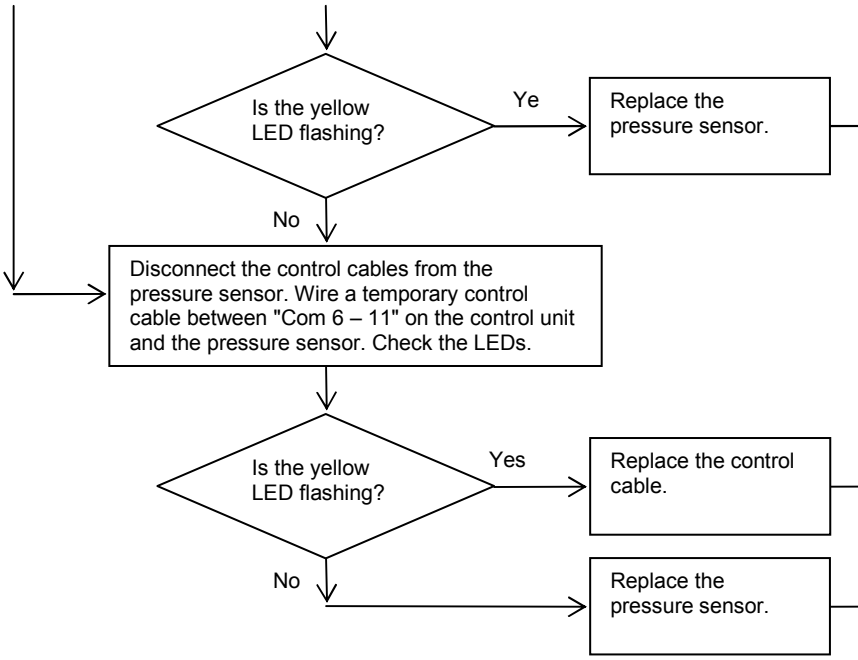


2.13.11. Alarm no. 15:15 "Plate heat exchanger, defrost pressure above alarm limit"

The alarm is enabled when a GOLD PX unit with RECOfrost or Standard pressure defrost function is selected. The alarm trips if the defrost pressure exceeds the preset value in the HMI under "Heat exchanger – bypass – defrost".

For troubleshooting, see Alarm no. 17:3

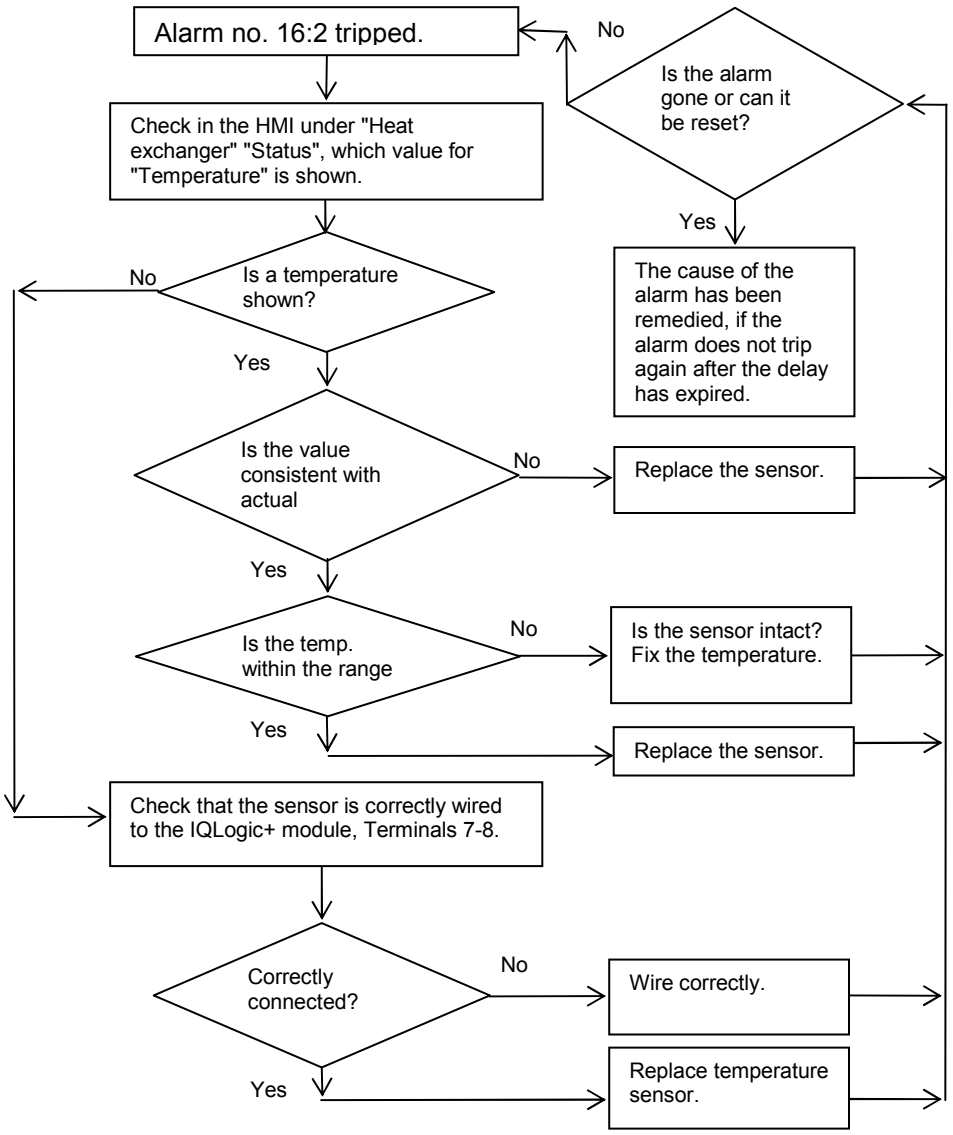
Alarm group 16: COIL HEAT EXCHANGER

2.13.12. Alarm no. 16:1 "Coil heat exchanger, I/O module no. 1 communication error"

The alarm of IQLogic+ module 1 (S) is enabled when the GOLD CX unit is selected.
The alarm trips if the control unit does not achieve correct communication with the module.
For troubleshooting see Alarm no. 15:1 above.

2.13.13. Alarm no. 16:2 "Coil heat exchanger, temperature sensor defective"

The alarm is enabled when a GOLD CX unit is selected. The alarms trip when the control unit does not have communication with the frost protection temp. sensor on the return pipe or when the sensor measures temperatures outside the range of measurement (-55°C – 125°C).


Alarm no. 16:2 tripped.
Check in the HMI under "Heat exchanger" "Status", which value for "Temperature" is shown.
Is a temperature shown?
No
Yes
Is the value consistent with actual
No
Replace the sensor.
Yes
Is the temp. within the range
No
Is the sensor intact? Fix the temperature.
Yes
Replace the sensor.
Check that the sensor is correctly wired to the IQLogic+ module, Terminals 7-8.
Correctly connected?
No
Wire correctly.
Yes
Replace temperature sensor.
Is the alarm gone or can it be reset?
No
Yes
The cause of the alarm has been remedied, if the alarm does not trip again after the delay has expired.

2.13.14. Alarm no. 16:3 "Coil heat exchanger, valve monitoring tripped"

The alarm is enabled when a GOLD CX unit is selected and valve monitoring is activated..
The alarm trips when the feedback signal (input signal) from the valve actuator does not agree with the control signal.
For a 0-2% output signal the feedback must be < 8% and for a 97-100% output signal >92% so that the alarm will not trip.

For troubleshooting see Alarm no. 3:6 above.

2.13.15. Alarm no. 16:4 "Coil heat exchanger, pump monitoring tripped"

The alarm is enabled when a GOLD CX unit is selected and pump alarm is activated.
The following alarm functions are available: "Alarm on closed contact" (factory setting), "Alarm on open contact" and "Contactor function".
The alarm trips when the alarm input on Terminals 11-12 on the IQLogic+ module meet the necessary conditions for the selected alarm.

For GOLD CX units with **DAB pump**, controlled with an On/off signal transmitted directly to the pump, from Terminals 9-10 on the IQLogic+ module.
The pump has an internal common fault alarm wired to Terminals 11-12 on the IQLogic+ module.

- Check that the safety switch of the circulation pump is in switched on.
- Check that the alarm function is selected to "Alarm on closed contact".
- Check whether it is possible to reset the alarm by switching off the pump safety switch for 1 minute.
- Check the pump display to ensure that the pump is correctly preset. See separate instructions for the pump.

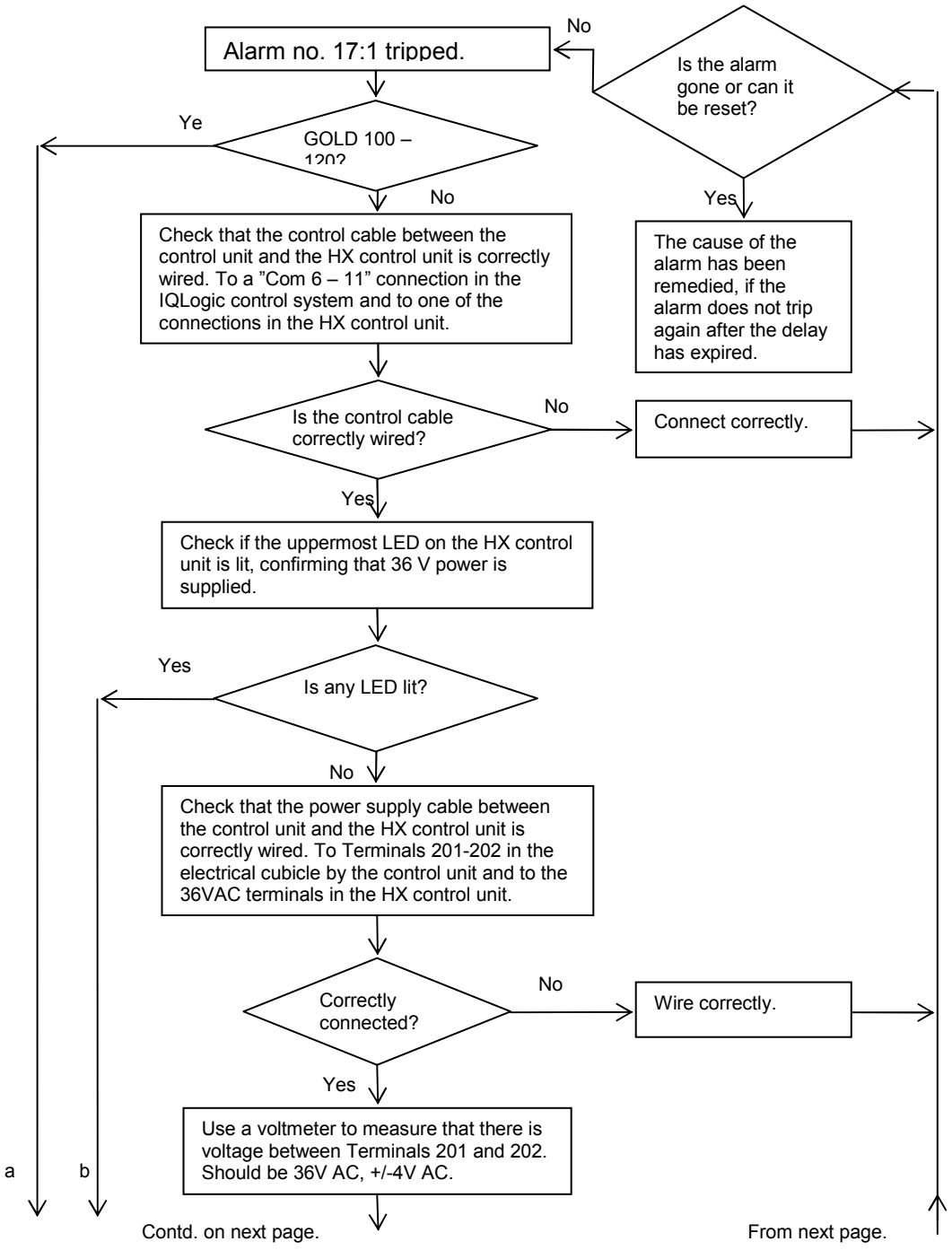
For GOLD CX units with **Grundfos pump**, controlled by means of a contactor.
The contactor is controlled with an On/off signal from Terminals 9-10 on the IQLogic+ module.
The pump is protected by the protective motor switch in the electrical cubicle.
The contactor's On/off signal is interlocked by the protective motor switch.
The in-operation feedback input on Terminals 11-12 on the IQLogic+ module is wired to normally-open auxiliary contacts on the contactor.

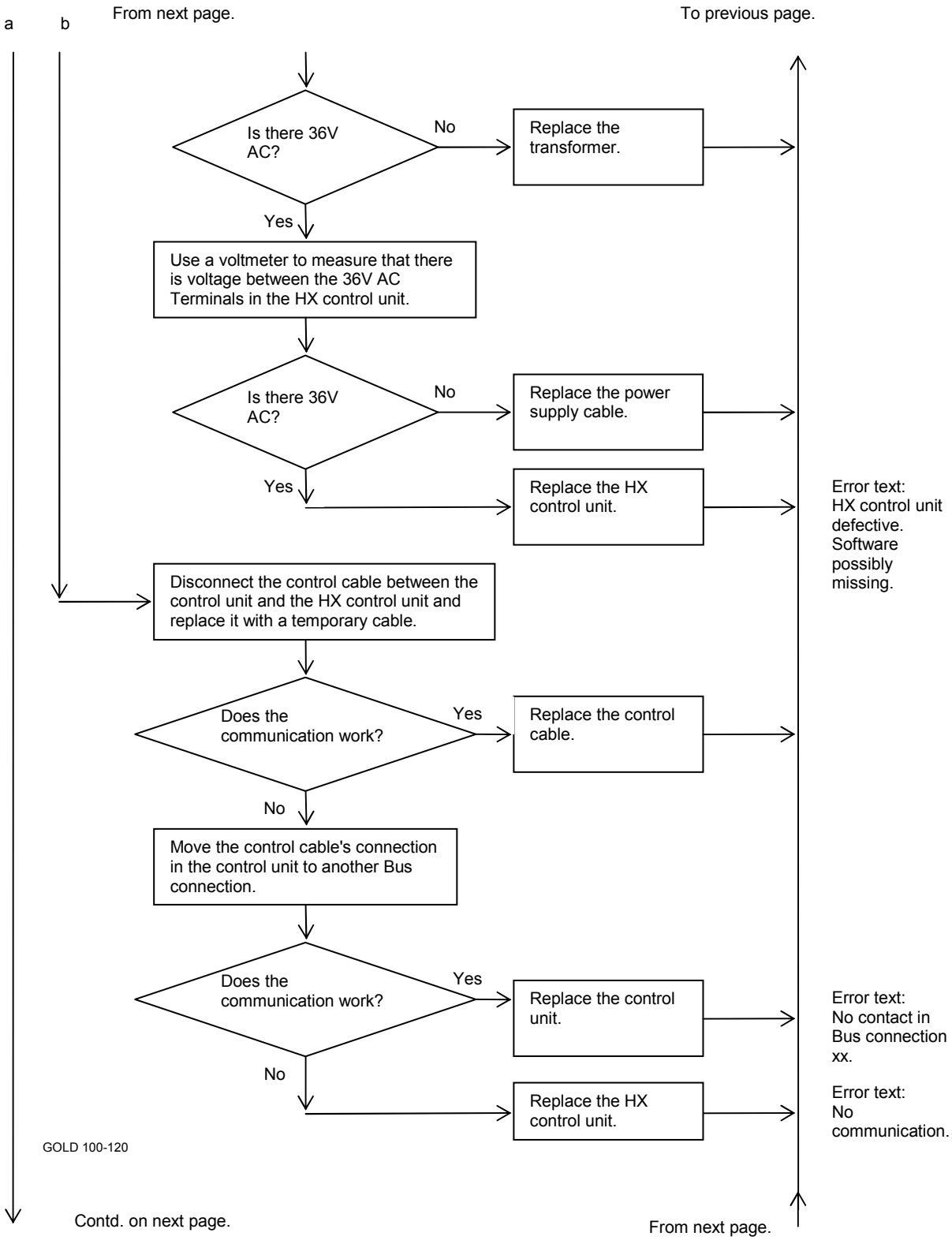
- Check that the protective motor switch of the circulation pump is switched On.
- Check that "Contactor function".is selected as the alarm function.
- Check after resetting the alarm that the contactor is energised on a start in the "Manual text" mode.
- If the alarm repeats itself, check that the motor protection is preset for the correct current in relation to the pump.

2.14. Alarm group 17: ROTARY HEAT EXCHANGER

2.14.1. Alarm no. 17:1 "Rotary heat exchanger, communication error, motor controller"

The alarm is enabled when a GOLD RX unit is selected.
The alarm trips if the control unit does not achieve correct communication with the heat exchanger's motor controller.

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Is there 36V AC?
No
Replace the transformer.
Yes
Use a voltmeter to measure that there is voltage between the 36V AC Terminals in the HX control unit.
Is there 36V AC?
No
Replace the power supply cable.
Yes
Replace the HX control unit.
Error text: HX control unit defective. Software possibly missing.
Disconnect the control cable between the control unit and the HX control unit and replace it with a temporary cable.
Does the communication work?
Yes
Replace the control cable.
No
Move the control cable's connection in the control unit to another Bus connection.
Does the communication work?
Yes
Replace the control unit.
Error text: No contact in Bus connection xx.
No
Replace the HX control unit.
Error text: No communication.
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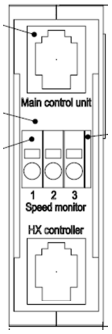
GOLD 100-120

Check that the control cable between the control unit and the ”Speed monitor adapter” is correctly wired. To a ”Com 6 – 11” in the control unit and to the ”Main control unit” connection in the adapter.



Is the control cable correctly wired?

No → Connect correctly.

Yes

Check that the control cable between the ”Speed monitor adapter” and the HX motor controller is correctly wired. To the "HX controller" connection in the adapter and to connection "A" in the HX motor controller.

Is the control cable correctly wired?

No → Connect correctly.

Yes

Check that the power supply cable between safety switch F1 in the electrical cubicle and the HX motor controller is correctly wired and that the quick-fit connector is fitted together. Connect the cable in the HX motor controller to Terminals N and L.

Correctly connected?

No → Wire correctly.

Yes

Check that safety switch F1 is switched on. Use a voltmeter to measure that there is 230 V voltage out from the two poles on the safety switch.

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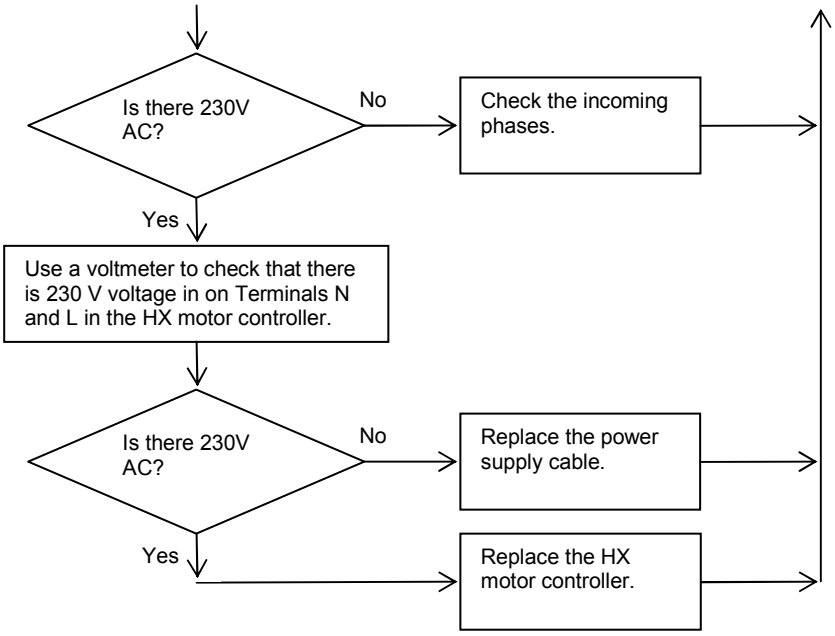
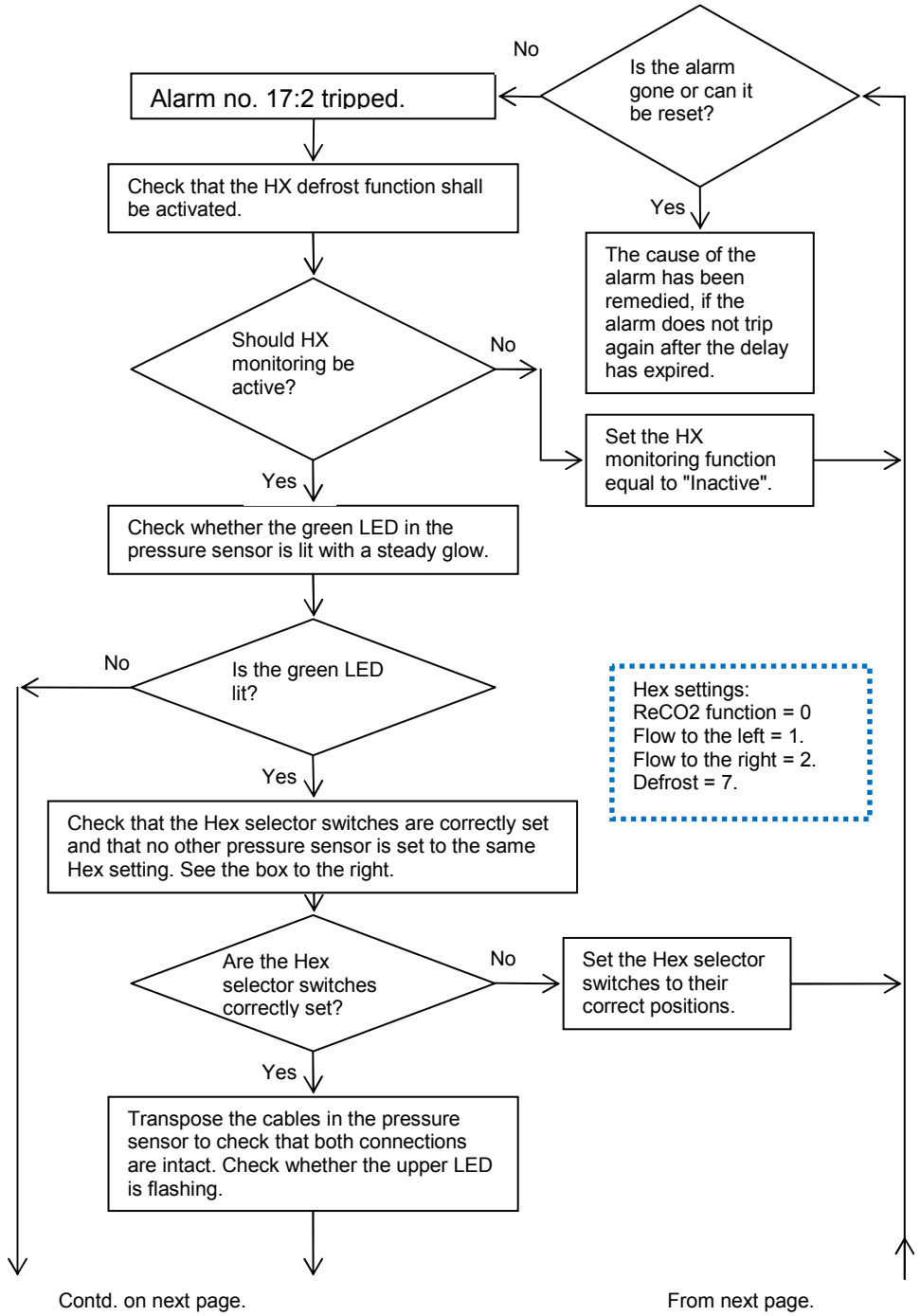


2.14.2. Alarm 17:2 "Rotary heat exchanger,communication error, pressure sensor 7 defrost"

The alarm is enabled when the Heat exchanger, Defrost function is activated.
The alarm trips when the control unit does not obtain communication with the relevant pressure sensor.



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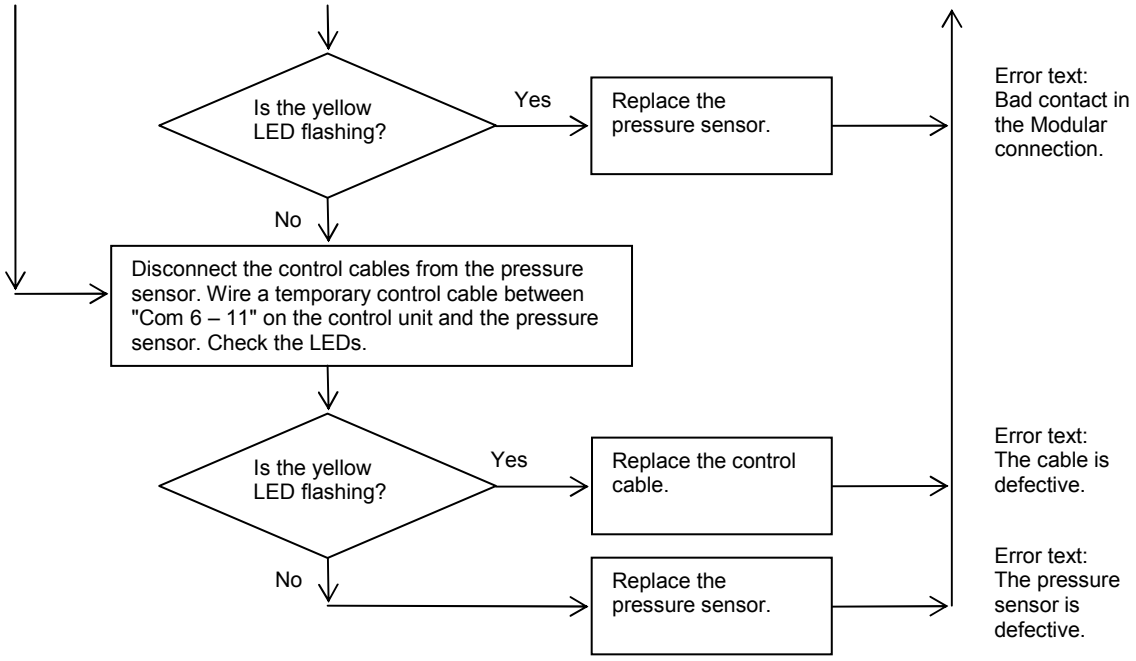
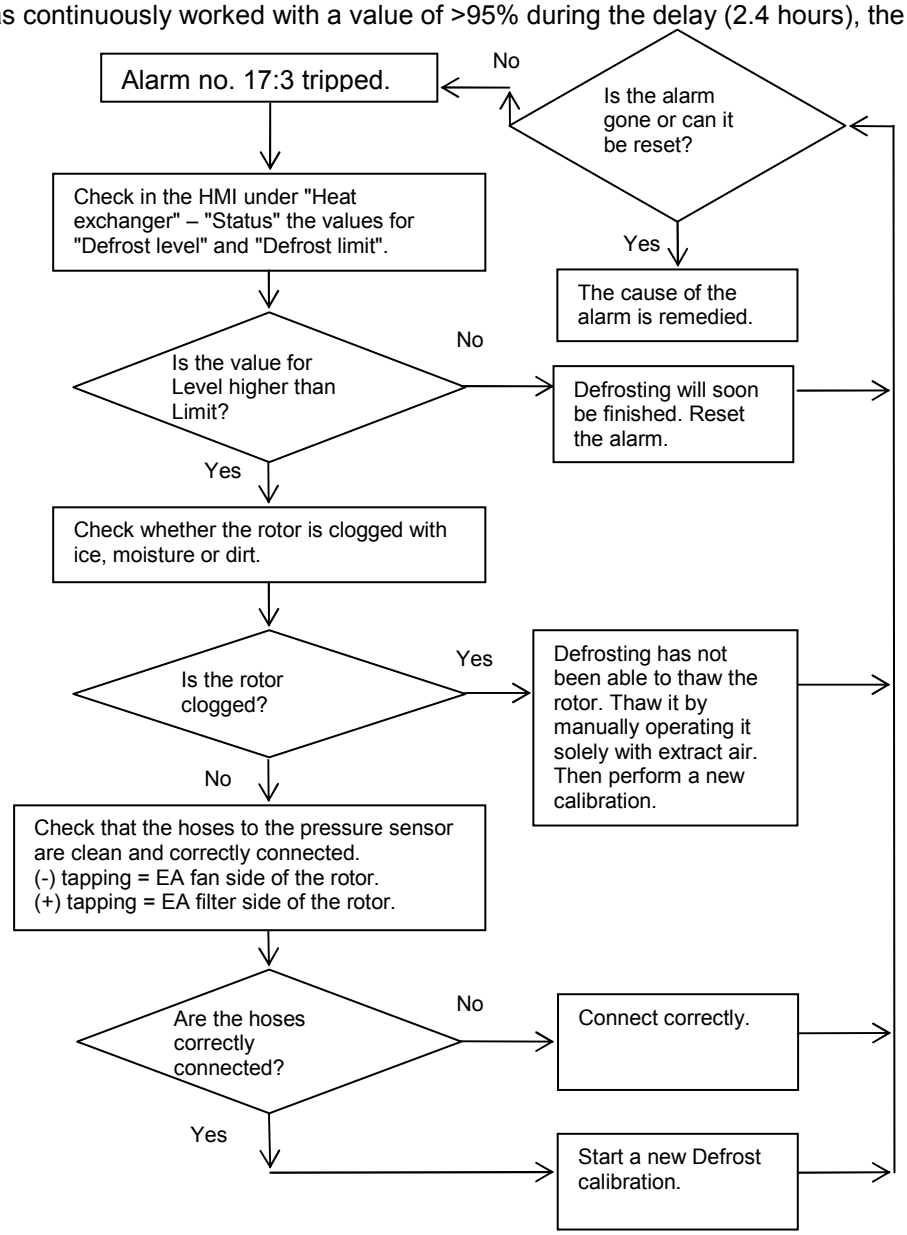


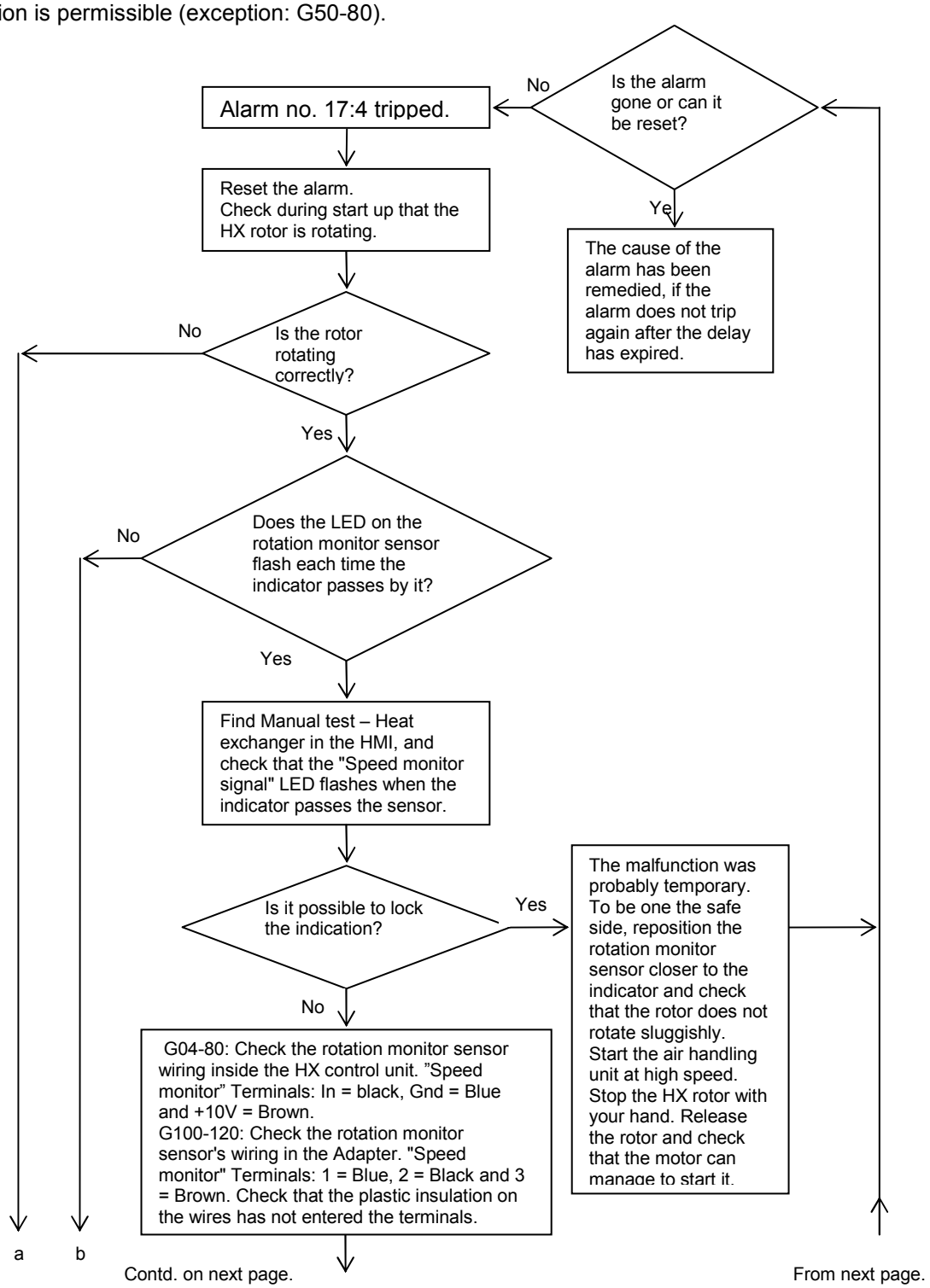
2.14.3. Alarm no. 17:3 "Rotary heat exchanger, defrost pressure above alarm limit".

The alarm is enabled if the GOLD RX is selected and the defrost function is activated.
When the pressure across the heat exchanger is above the preset "Defrost limit", a defrost controller begins to operate.
If the controller has continuously worked with a value of >95% during the delay (2.4 hours), the alarm will trip.



2.14.4. Alarm no. 17:4 "Rotary heat exchanger, rotation monitor tripped"

The alarm is enabled if the GOLD RX is selected.
The alarm trips when the HX control unit does not detect pulses from the rotation monitor sensor, within the time that corresponds to about 2 turns of the rotor with the relevant control signal. No more than one pulse per rotor revolution is permissible (exception: G50-80).



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Correctly connected?

No

Wire correctly.

G04-80 Yes

G100-120 Yes

Check that the yellow LED in the HX control unit is flashing at the same time as the rotation monitor sensor diode is flashing.

Are the LEDs flashing in the HX control unit?

Yes

Replace the HX control unit. The signal is received but it is not being processed correctly in the control unit.

Error text: The rotation monitor's function is defective.

No

Wire a new rotation monitor sensor temporarily and check if it can read the Indicator. (G04-80) both LEDs are flashing at the same time when influenced.

Is the indication shown? Are the LEDs flashing?

Yes

Change to the new rotation monitor sensor.

Error text: The rotation monitor sensor is defective.

No

Replace the HX control unit.

Error text: The rotation monitor's function is defective.

G04-80: Check the rotation monitor sensor wiring inside the HX control unit. ”Speed monitor” Terminals: In = black, Gnd = Blue and +10V = Brown.
G100-120: Check the rotation monitor sensor's wiring in the Adapter. "Speed monitor" Terminals: 1 = Blue, 2 = Black and 3 = Brown. Check that the plastic insulation on the wire has not come into the terminal.

Correctly connected?

No

Wire correctly.

Yes

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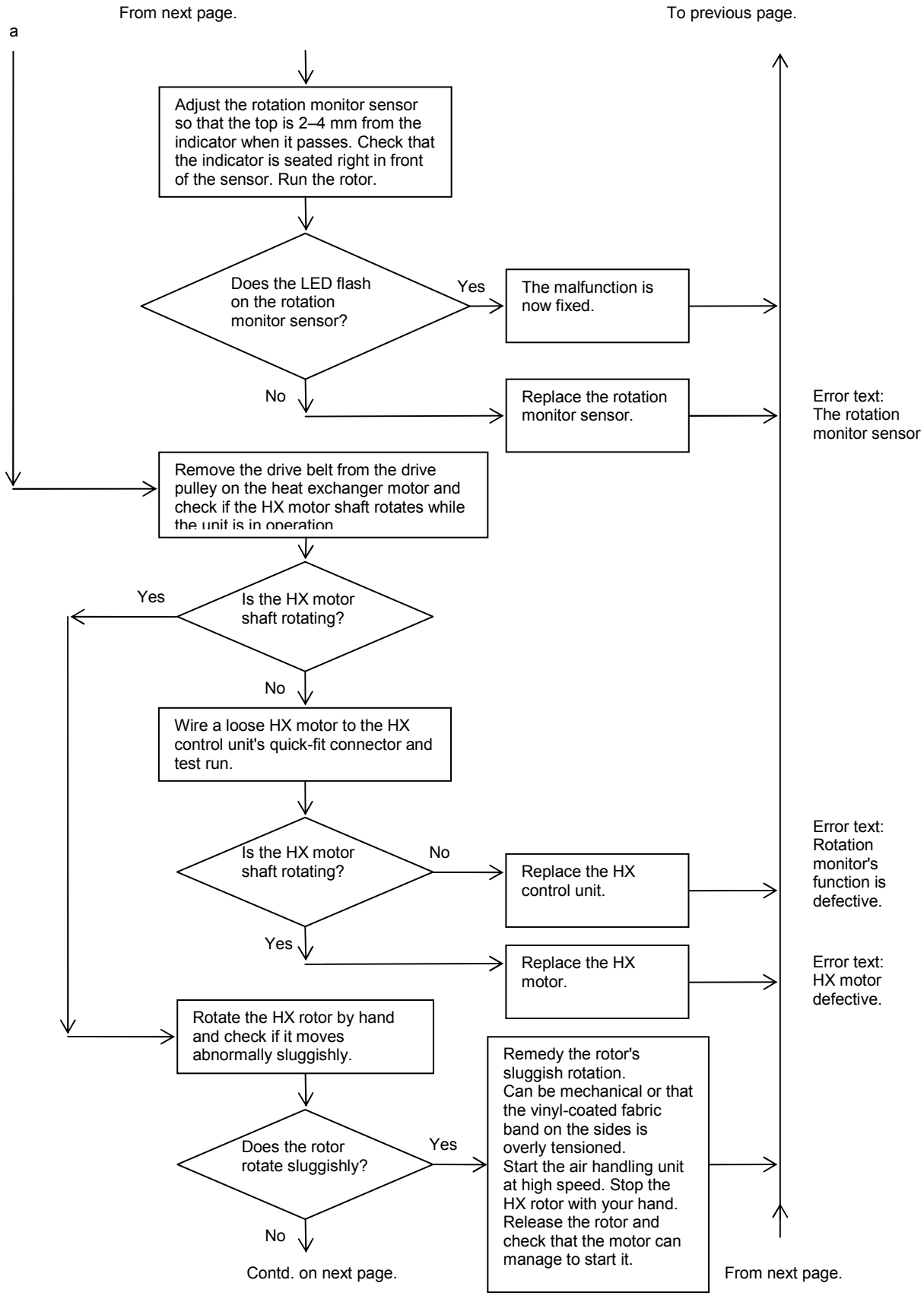
Fault tracing tripped alarm GOLD E			Document no.	Revision	Page 67 (146)
			Date released	Supersedes	
Type of document **Instruktion**	*Drawn up by* Bertil Sjunnesson	*Revised by* Magnus Hallén	*Released and published by*		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Adjust the rotation monitor sensor so that the top is 2–4 mm from the indicator when it passes. Check that the indicator is seated right in front of the sensor. Run the rotor.
Does the LED flash on the rotation monitor sensor?
Yes
The malfunction is now fixed.
No
Replace the rotation monitor sensor.
Error text: The rotation monitor sensor
Remove the drive belt from the drive pulley on the heat exchanger motor and check if the HX motor shaft rotates while the unit is in operation
Yes
Is the HX motor shaft rotating?
No
Wire a loose HX motor to the HX control unit's quick-fit connector and test run.
Is the HX motor shaft rotating?
No
Replace the HX control unit.
Error text: Rotation monitor's function is defective.
Yes
Replace the HX motor.
Error text: HX motor defective.
Rotate the HX rotor by hand and check if it moves abnormally sluggishly.
Does the rotor rotate sluggishly?
Yes
Remedy the rotor's sluggish rotation. Can be mechanical or that the vinyl-coated fabric band on the sides is overly tensioned. Start the air handling unit at high speed. Stop the HX rotor with your hand. Release the rotor and check that the motor can manage to start it.
No
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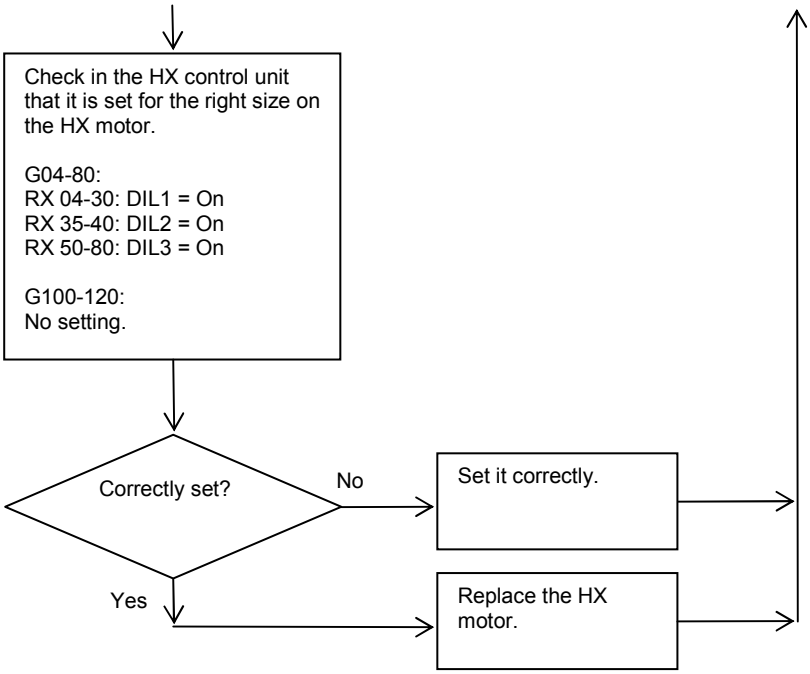
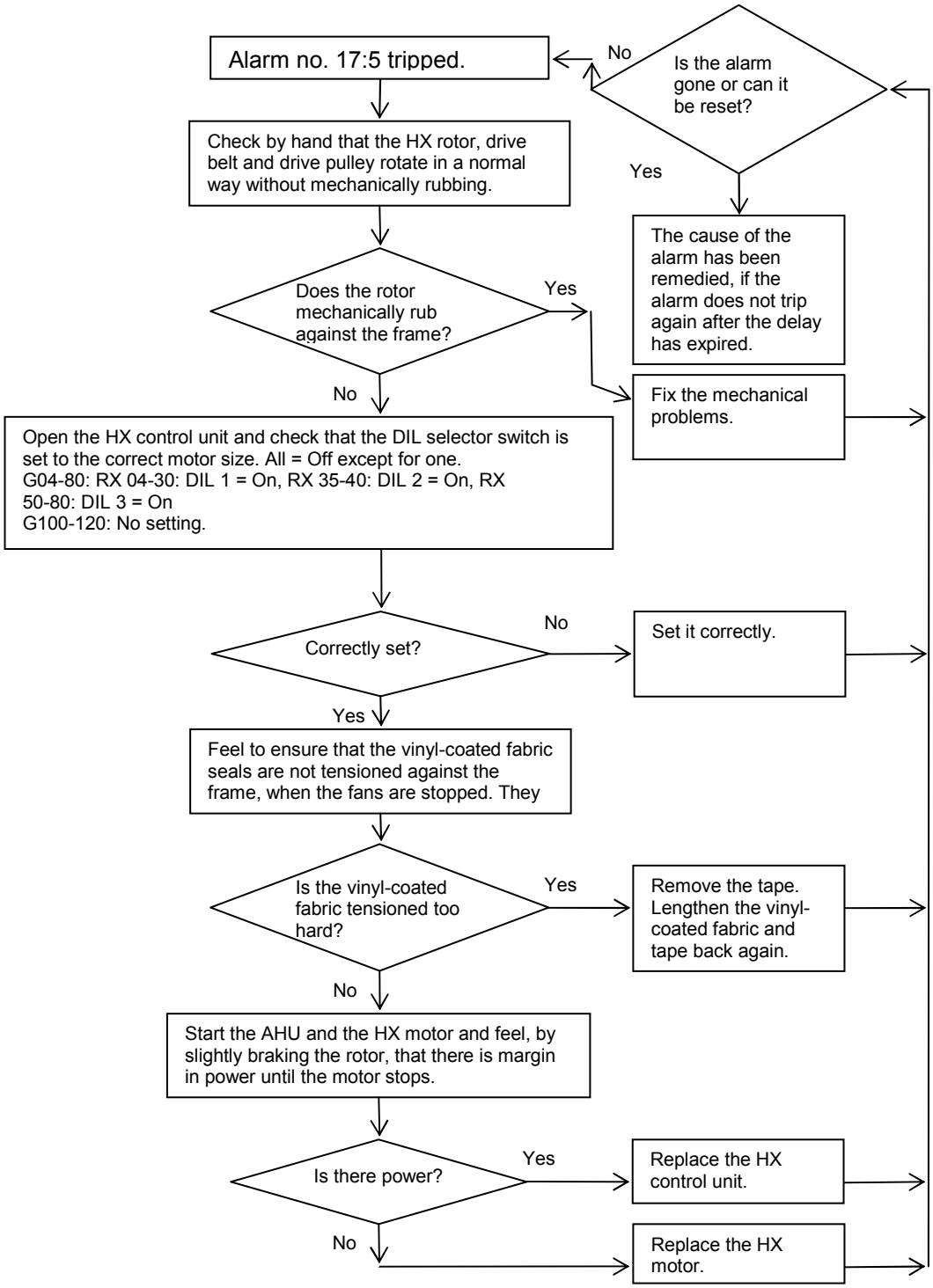


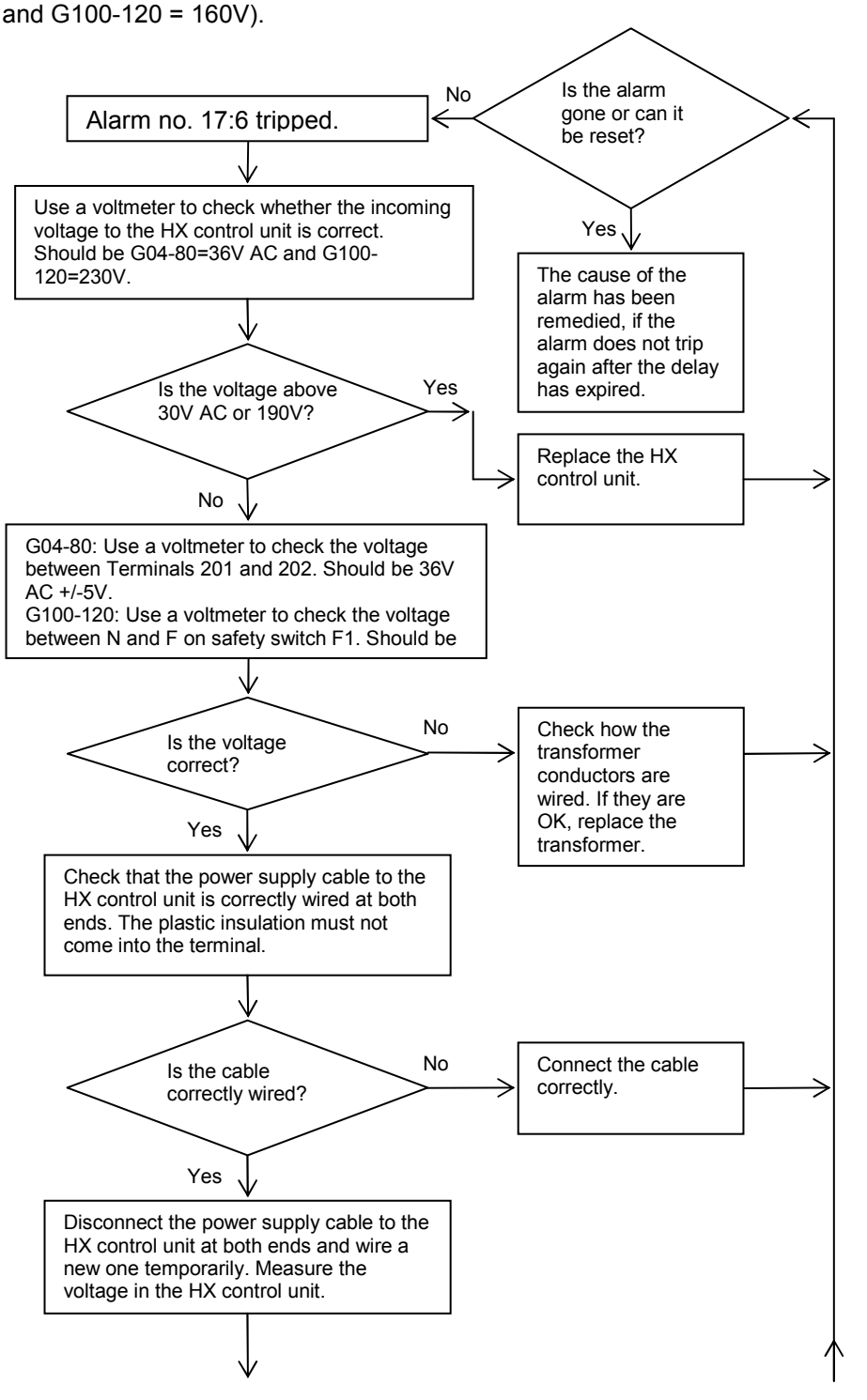
2.14.5. Alarm no. 17:5 "Rotary heat exchanger, over current to HX control system".

The alarm is enabled if the GOLD RX is selected.
The alarms trip when the internal monitoring in the HX control unit detects current to the HX motor above the alarm limit.



2.14.6. Alarm no. 17:6 "Rotary heat exchanger, undercurrent to HX control system".

The alarm is enabled only in GOLD RX units.
The alarms trip when the internal monitoring function in the HX control unit detects voltage below the alarm limit (G04-80 = 25V AC and G100-120 = 160V).



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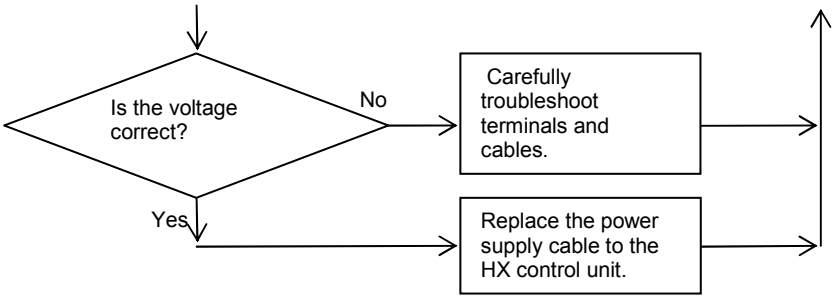
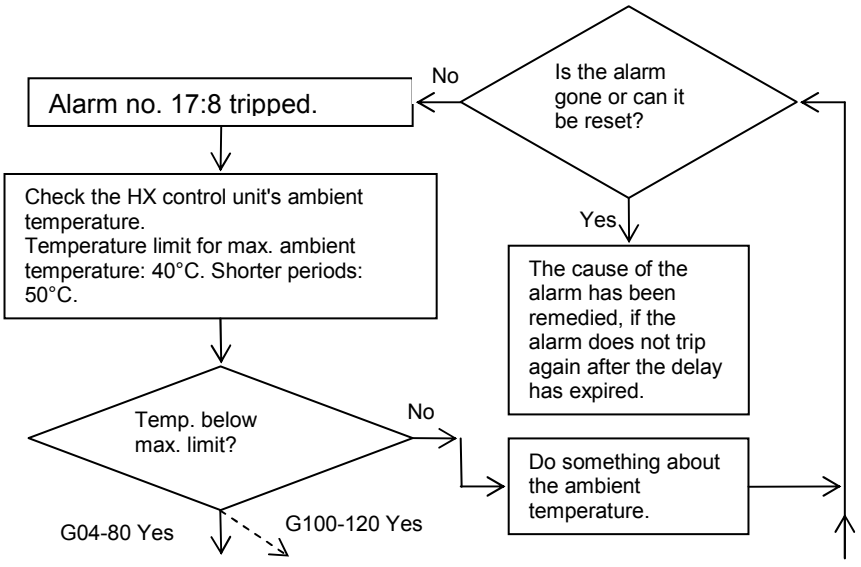


2.14.7. Alarm no. 17:7 "Rotary heat exchanger, over voltage to HX control system".

The alarm is enabled only in GOLD RX units.
The alarms trip when the internal monitoring function in the HX control unit detects voltage above the alarm limit. G04-80 = 55V AC and G100-120 = 340V.

2.14.8. Alarm no. 17:8 "Rotary heat exchanger, over temperature to HX control system".

The alarm is enabled only in GOLD RX units.
The alarms trip when the internal monitoring function in the HX control unit detects that the temperature in the HX control system is above 90°C.



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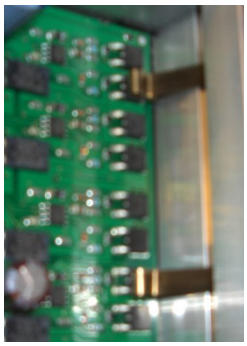
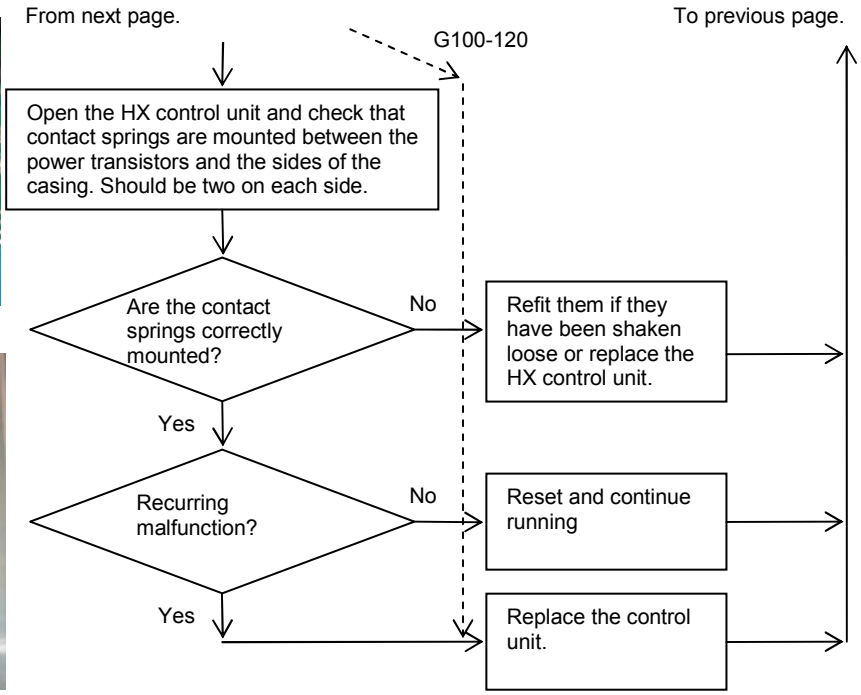
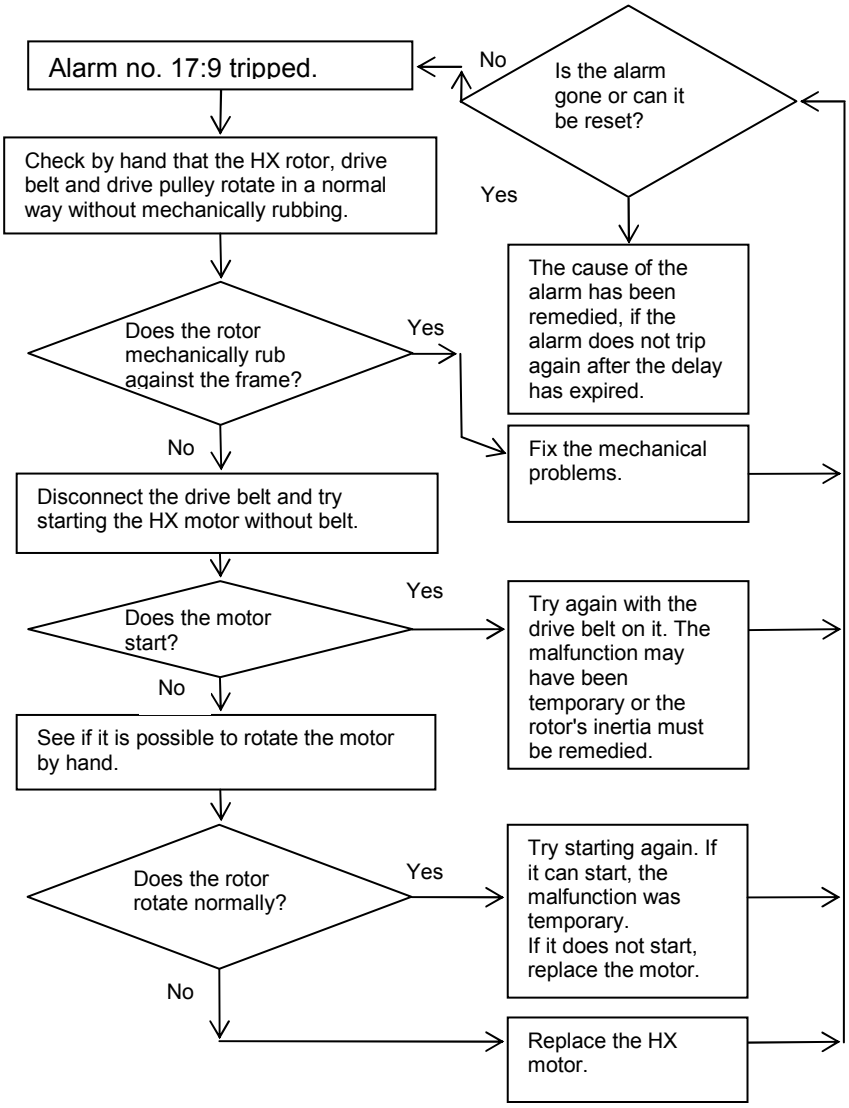
Fault tracing tripped alarm GOLD E			Document no.	Revision	Page 73 (146)
			Date released	Supersedes	
Type of document **Instruktion**	Drawn up by Bertil Sjunnesson	Revised by Magnus Hallén	Released and published by		





2.14.9. Alarm no. 17:9 "Rotary heat exchanger, HX control system start error"

The alarm is enabled only in GOLD RX 100-120 units.
The alarms trip when the internal monitoring function in the HX control unit detects that the HX motor does not start in the correct way.



2.15. Alarm group 18: AYC

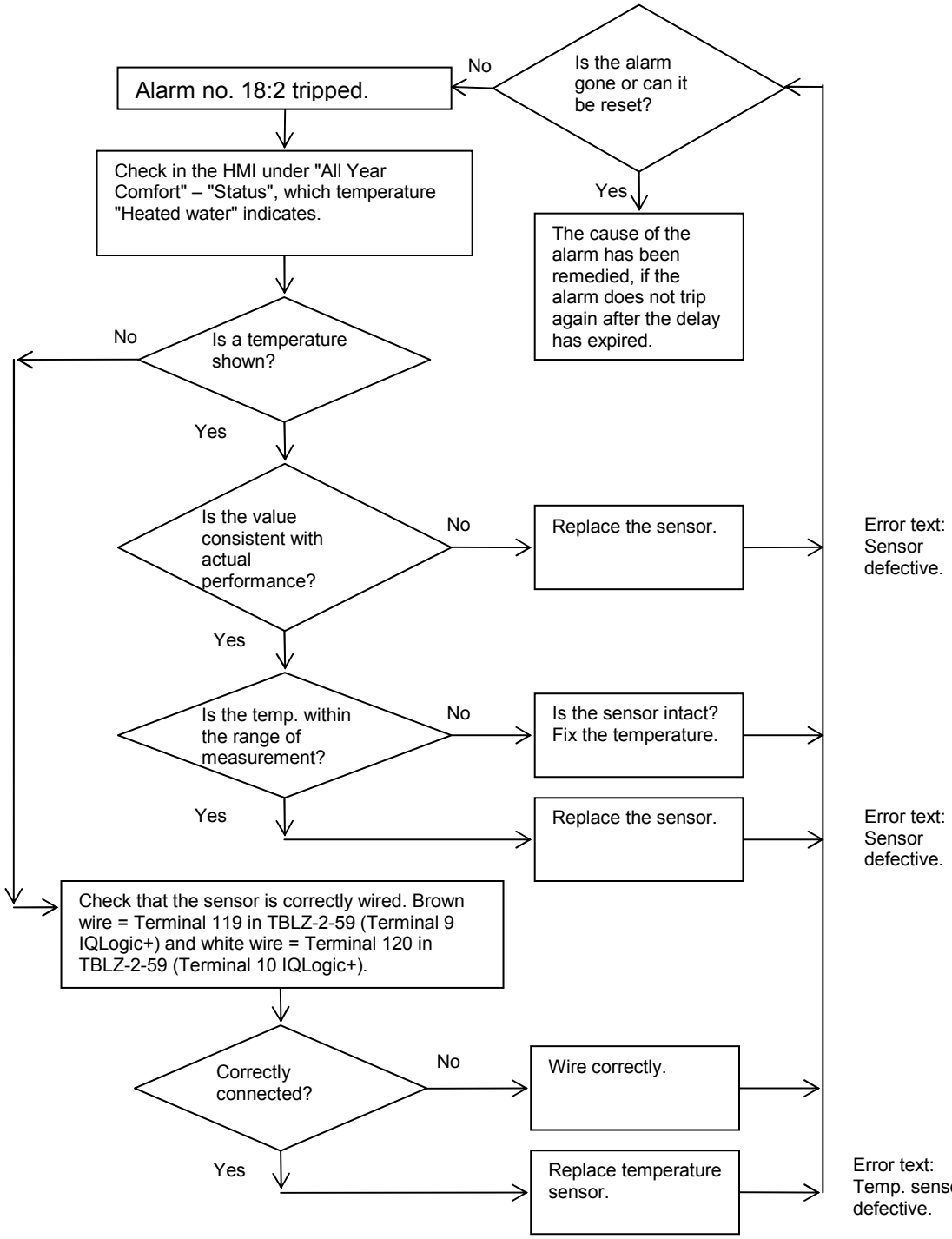
2.15.1. Alarm no. 18:1 "AYC, I/O module no. 7 communication error"

The alarm is enabled when the "All Year Comfort" function is activated.
The alarm trips if the control unit does not achieve correct communication with the module.

For troubleshooting see Alarm no. 3:1 above.

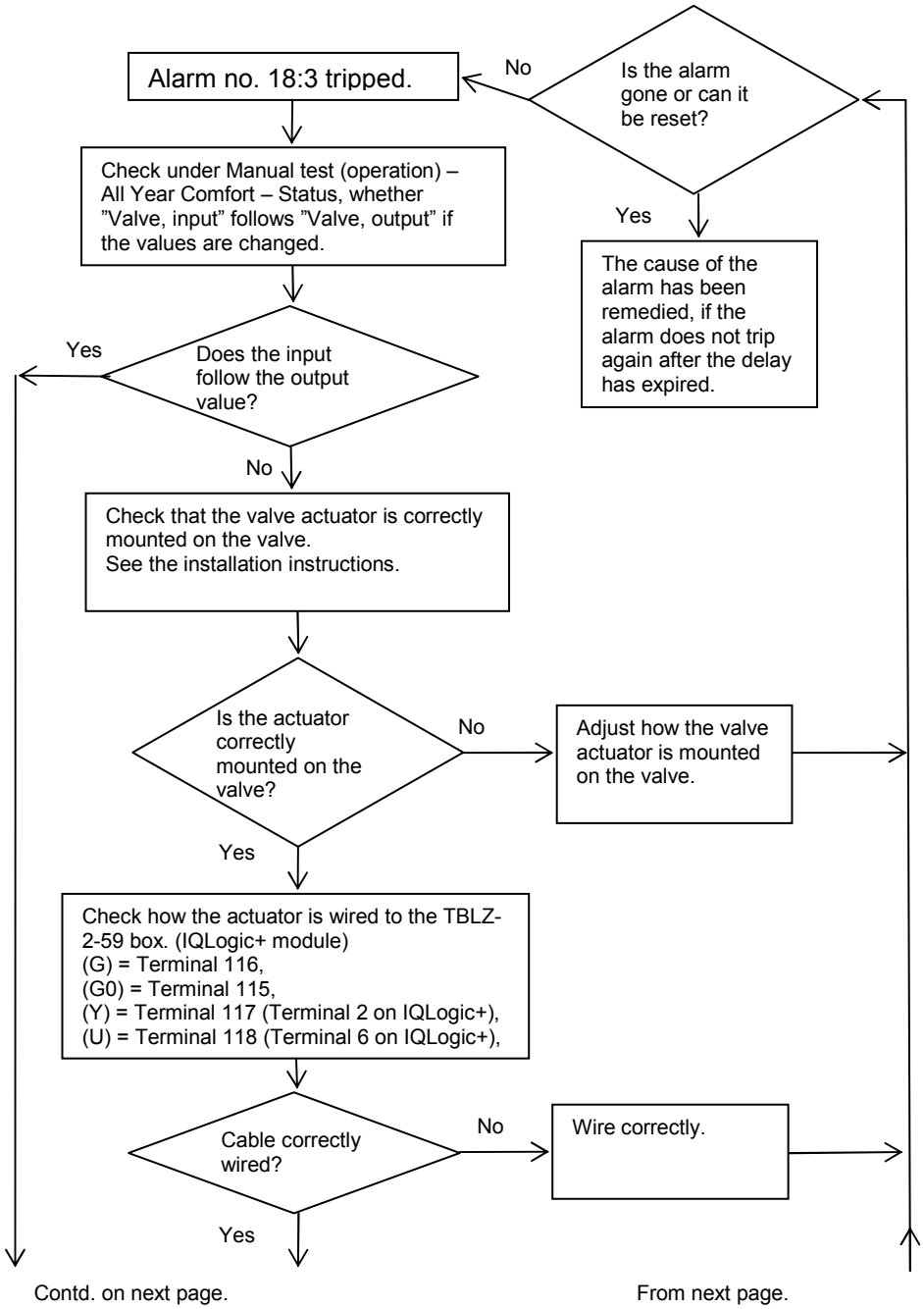
2.15.2. Alarm no. 18:2 "AYC Heat, temperature sensor defective"

The alarm is enabled when the "All Year Comfort" function is activated for "Heated water" or Chilled and heated water".
The alarms trip when the control unit does not have communication with the temperature sensor for the heated water circuit or when the sensor measures temperatures outside the range of measurement (-55°C – 125°C).



2.15.3. Alarm no. 18:3 "AYC Heat, pump monitoring tripped"

The alarm is enabled when the "All Year Comfort" function is activated for "Heated water" or Chilled and heated water".
The alarm trips when the feedback signal (valve input) from the valve actuator does not agree with the control signal (valve output). For a 0-2% output signal the feedback must be < 8% and for a 97-100% output signal >92% so that the alarm will not trip.



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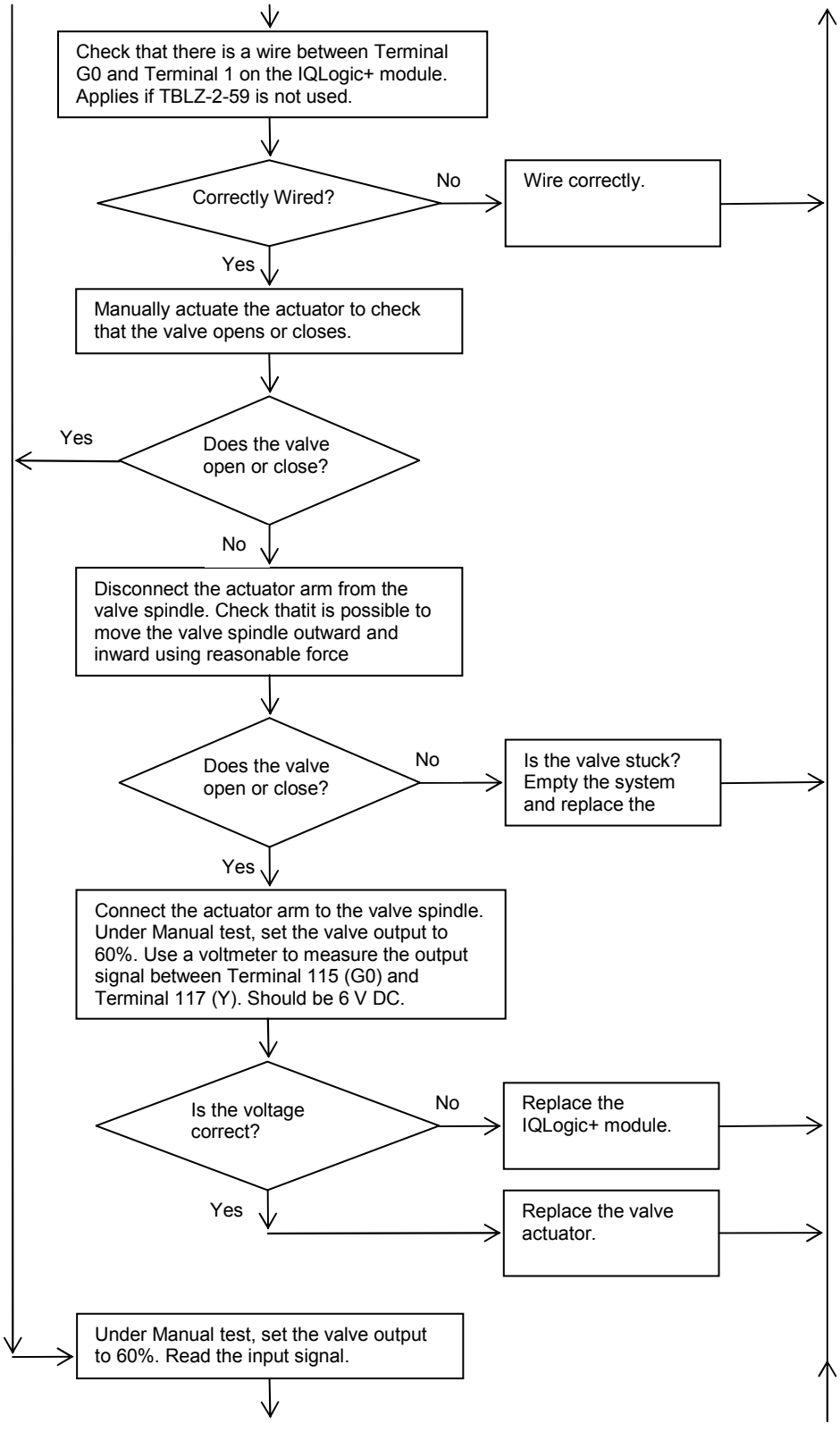

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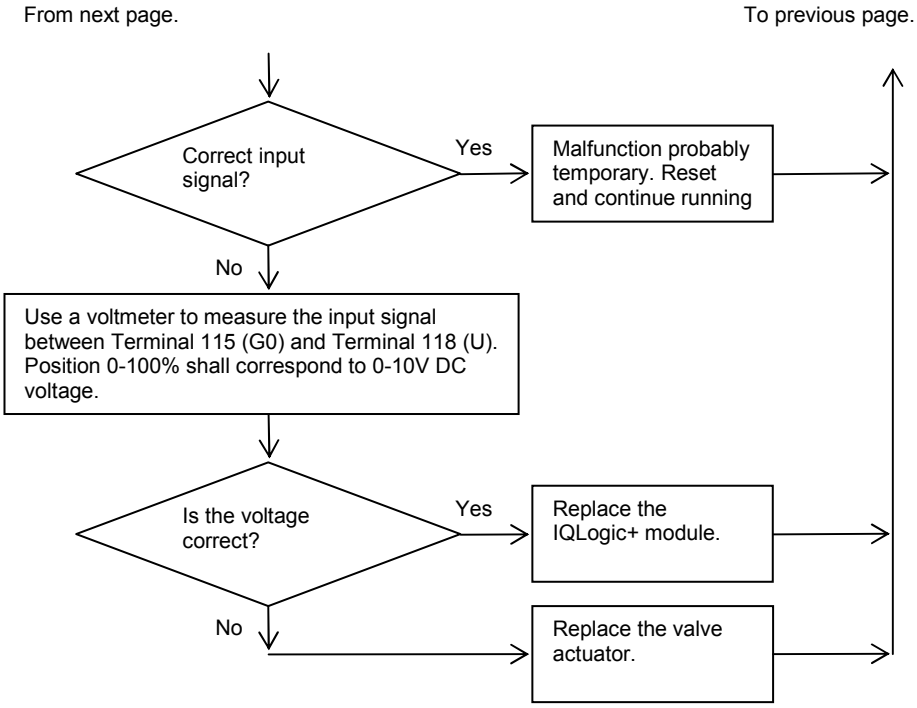


2.15.4. Alarm no. 18:4 "AYC heat, pump monitoring tripped"

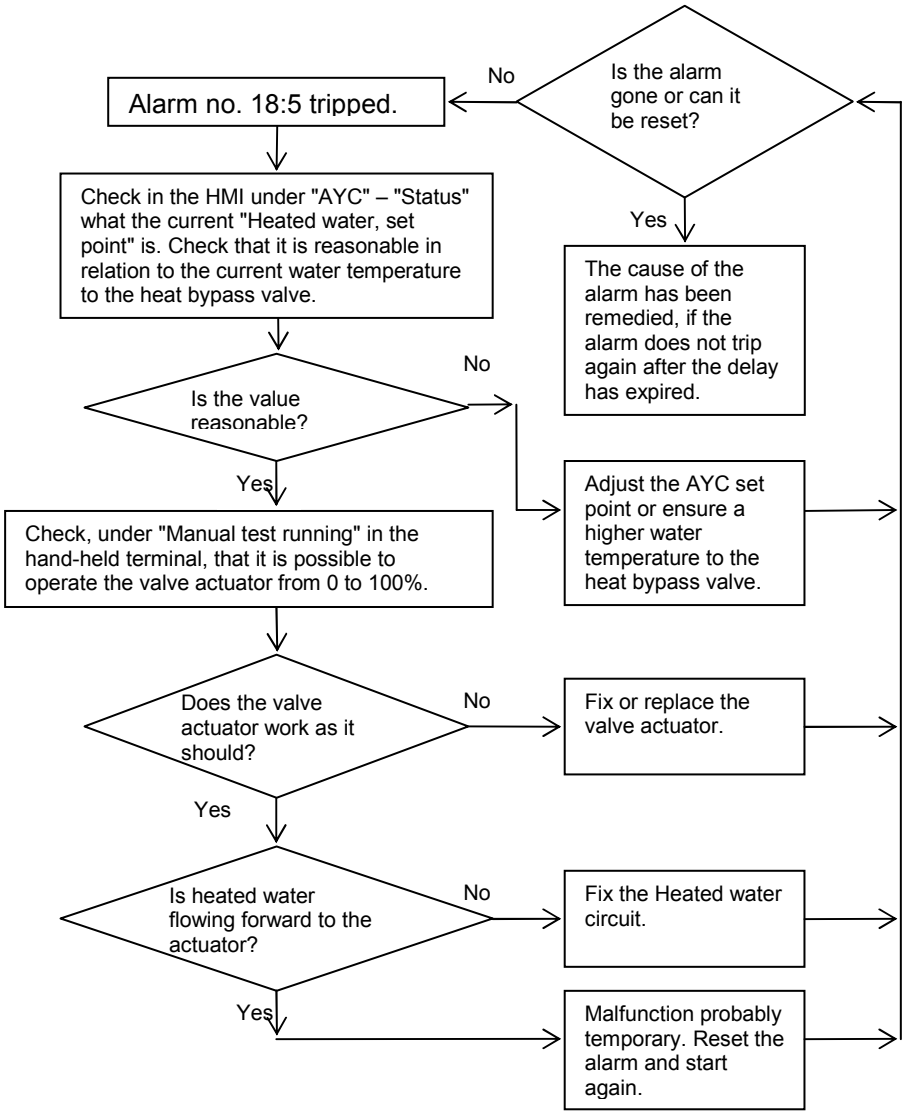
The alarm is enabled when the "All Year Comfort" function is activated for "Heated water" or Chilled and heated water" and when any of the "Heated water, pump alarm" functions are selected.

The alarm trips when the current status of the alarm input (closed or open), on Terminals 113-114 in the TBLZ-2-59 box (Terminals 19-20 on IQLogic+ module 7) correspond to the selected alarm function.
Optional functions: "Alarm on open contact", "Alarm on closed contact" and "Contactor function".
Contactor function means that the alarm input must close within 3 seconds after the Pump output has been energised. Used when a contactor is used for controlling the pump.

- Check under ”All Year Comfort” – "Status" the status on the ”Heated water, pump output” and ”Heated water, pump input”.

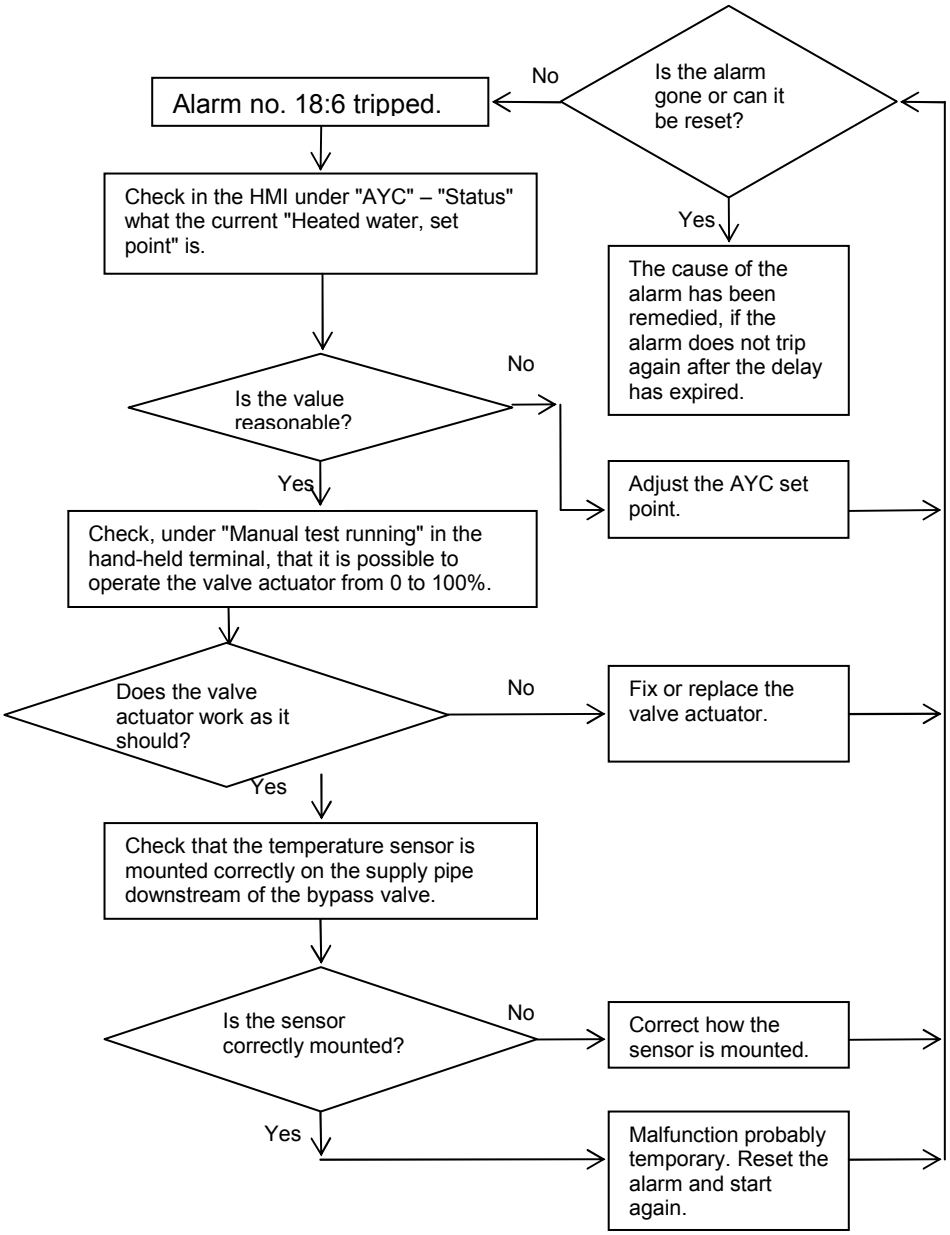
2.15.5. Alarm no. 18:5 "AYC Heat, below set point alarm limit"

The alarm is enabled when the "All Year Comfort" function is activated for "Heated water" or Chilled and heated water".
The alarms trip when the water temperature for AYC Heat is below the relevant alarm limit in relation to the set point for more than 20 minutes. Check that the preset alarm limit is appropriate.



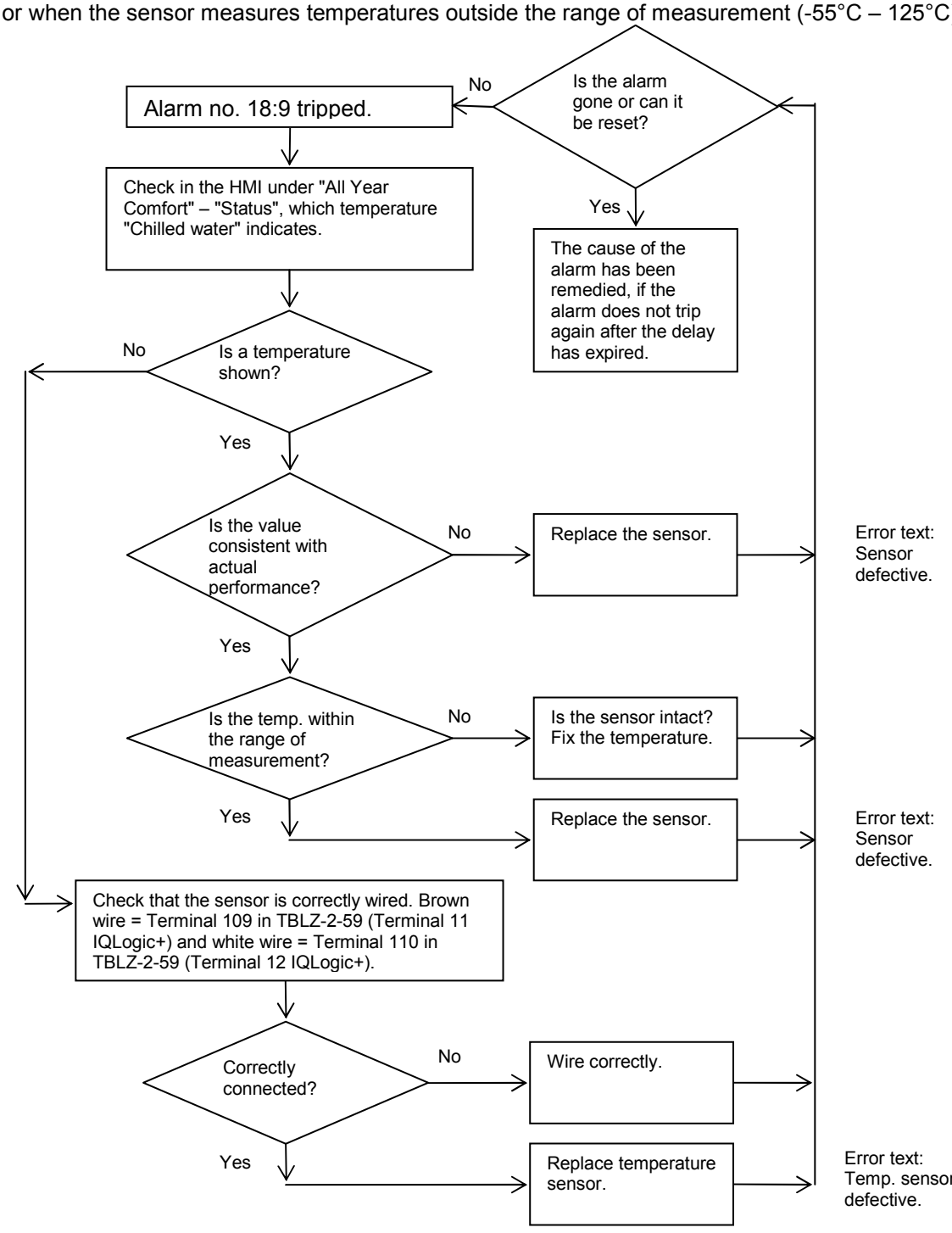
2.15.6. Alarm no. 18:6 "AYC Heat, above set point alarm limit"

The alarm is enabled when the "All Year Comfort" function is activated for "Heated water" or Chilled and heated water" and the alarm is manually activated under Alarm priority.
The alarms trip when the water temperature for AYC Heat is above the relevant alarm limit in relation to the set point for more than 20 minutes. Check that the preset alarm limit is appropriate.



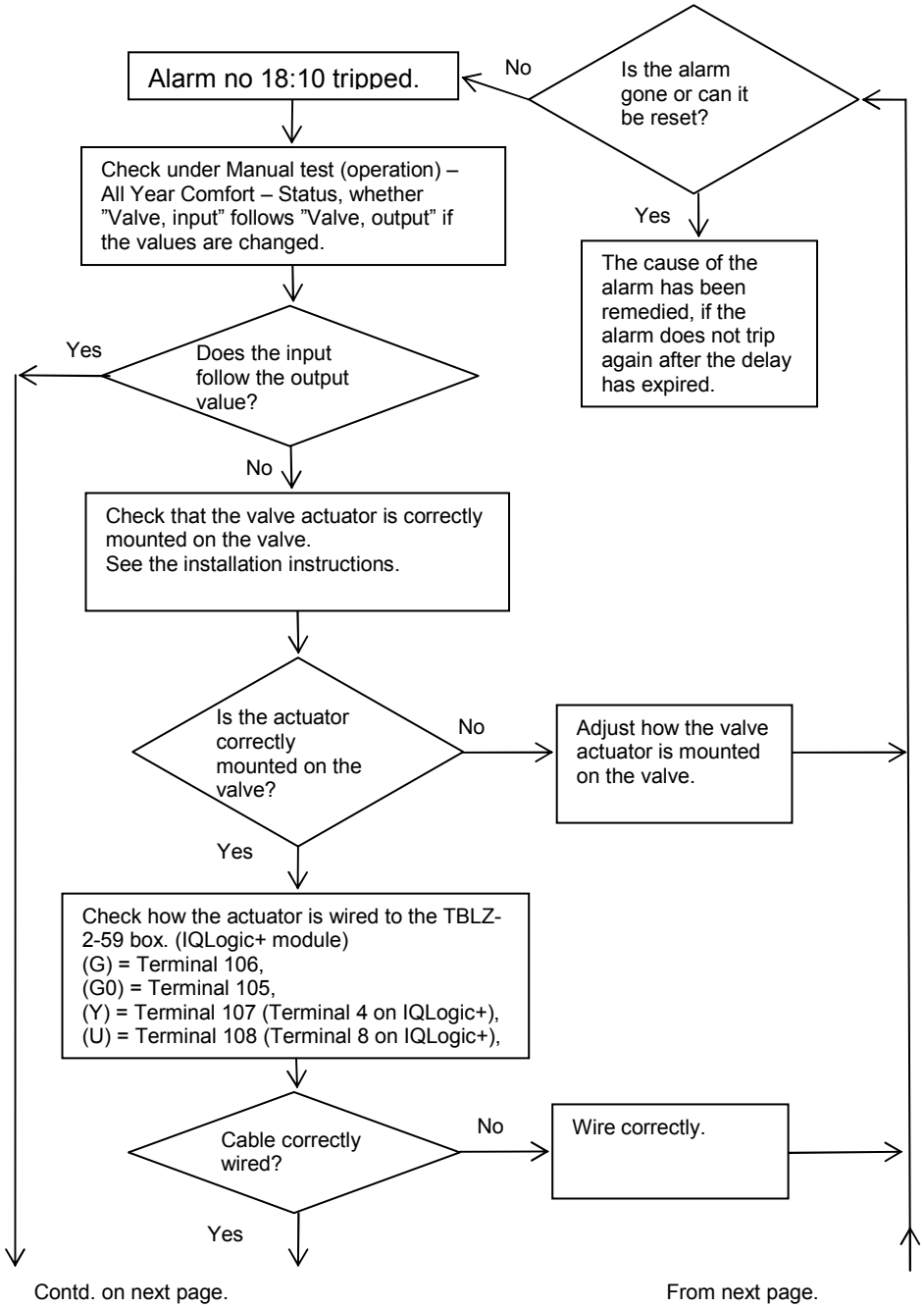
2.15.7. Alarm no. 18:9 "AYC Cool, temperature sensor defective"

The alarm is enabled when the "All Year Comfort" function is activated for "chilled water" or Chilled and heated water".
The alarms trip when the control unit does not have communication with the temperature sensor for the heated water circuit or when the sensor measures temperatures outside the range of measurement (-55°C – 125°C).



2.15.8. Alarm no. 18:10 "AYC Cool, valve monitoring tripped"

The alarm is enabled when the "All Year Comfort" function is activated for "Heated water" or Chilled and heated water".
The alarm trips when the feedback signal (valve input) from the valve actuator does not agree with the control signal (valve output).
For a 0-2% output signal the feedback must be < 8% and for a 97-100% output signal >92% so that the alarm will not trip.



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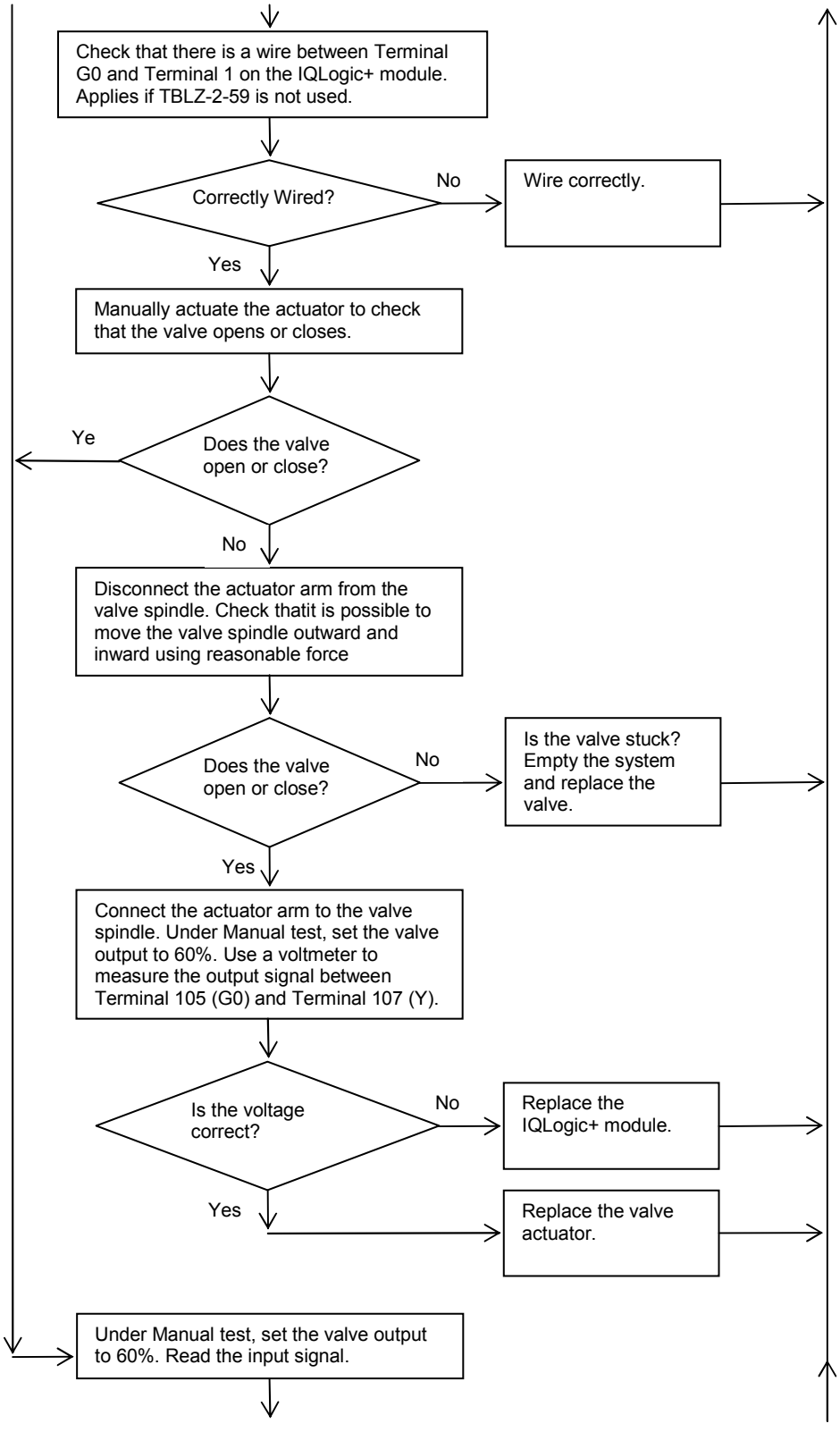

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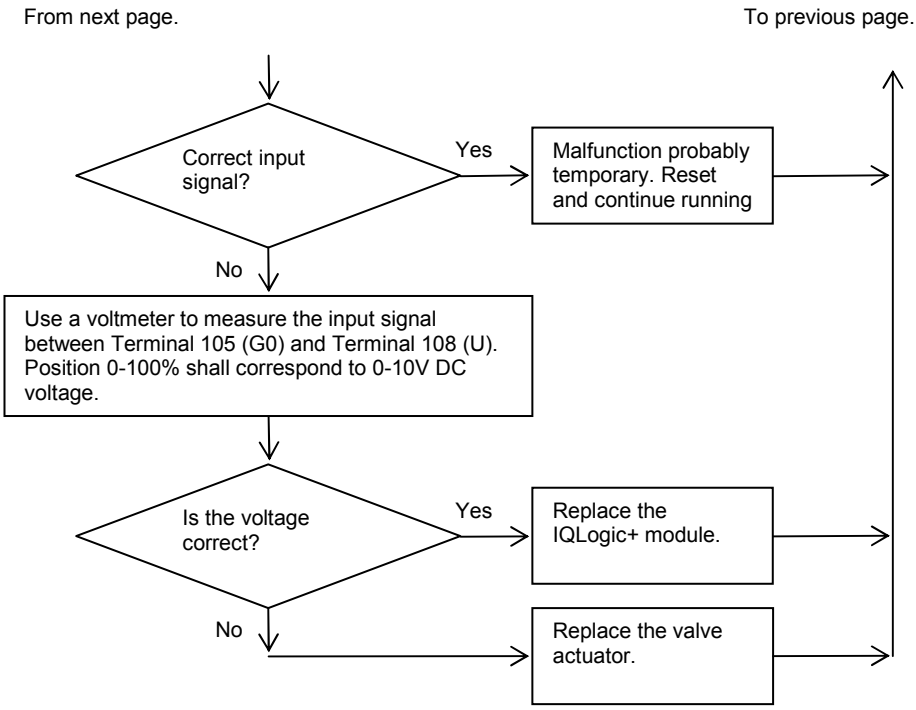


2.15.9. Alarm no. 18:11 "AYC Cool, pump monitoring tripped"

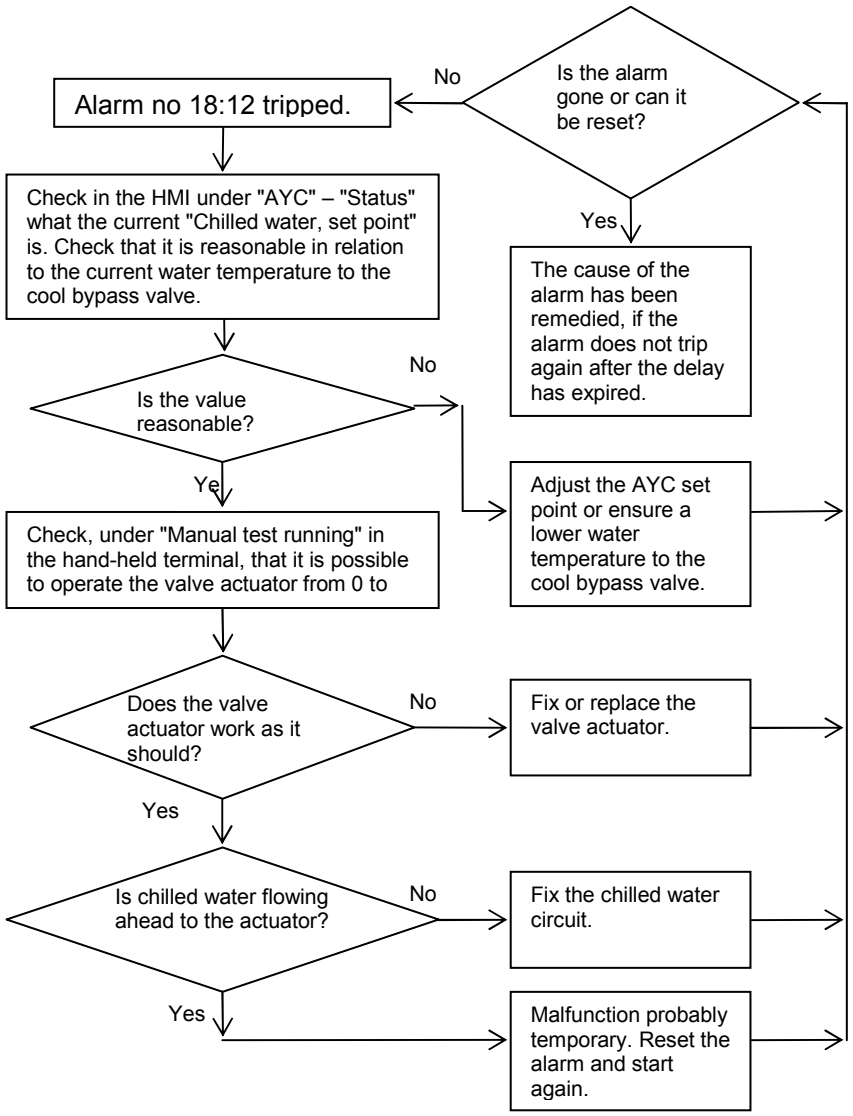
The alarm is enabled when the "All Year Comfort" function is activated for "Chilled water" or Chilled and heated water" and when any of the "Chilled water, pump alarm" functions are selected.

The alarm trips when the current status of the alarm input (closed or open), on Terminals 103-104 in the TBLZ-2-59 box (Terminals 17-18 on IQLogic+ module 7) correspond to the selected alarm function.
Optional functions: "Alarm on open contact", "Alarm on closed contact" and "Contactor function".
Contactor function means that the alarm input must close within 3 seconds after the Pump output has been energised. Used when a contactor is used for controlling the pump.

- Check under "All Year Comfort" – "Status" the status on the "Chilled water, pump output" and "Chilled water, pump input".

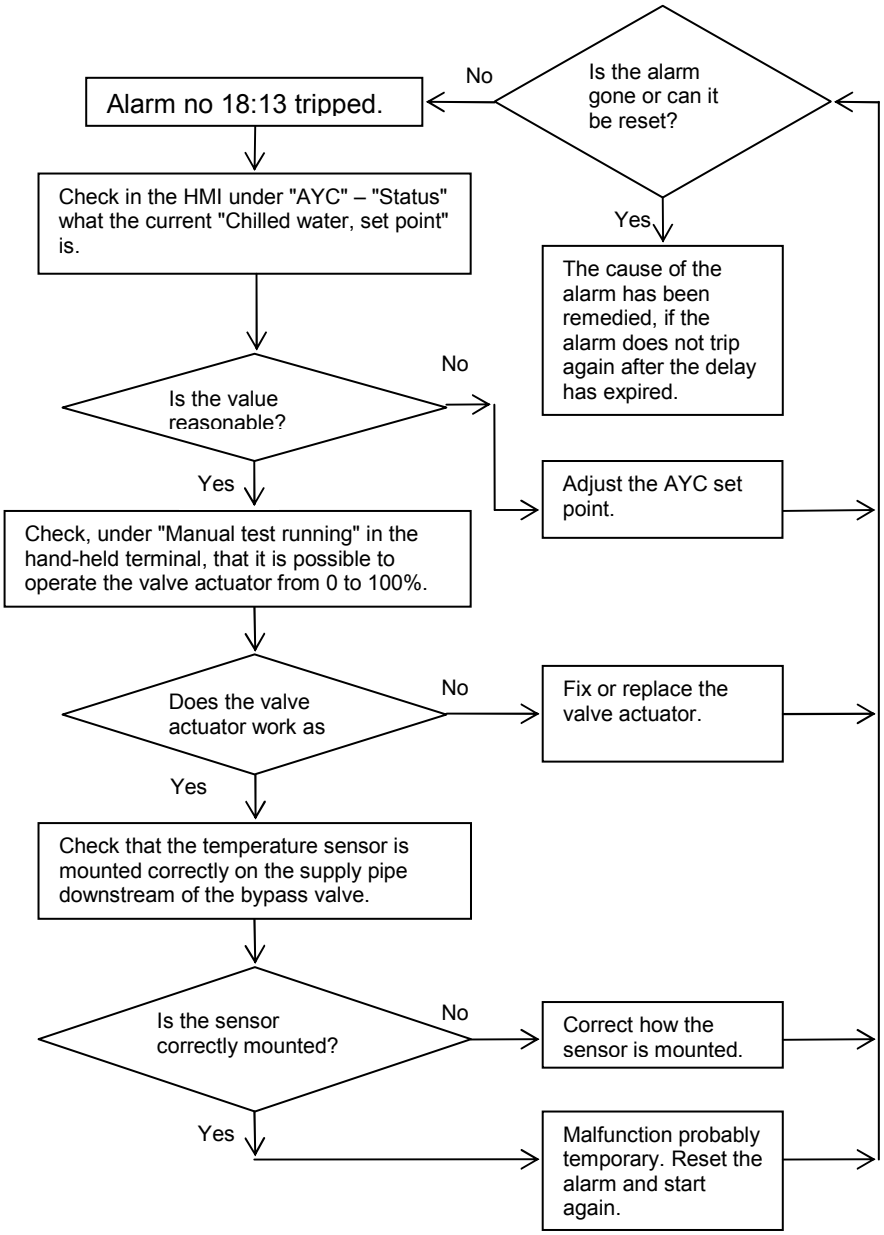
2.15.10. Alarm 18:12 "AYC Cool, below set point alarm limit"

The alarm is enabled when the "All Year Comfort" function is activated for "chilled water" or Chilled and heated water".
The alarms trip when the water temperature for AYC Cool is below the relevant alarm limit in relation to the set point for more than 20 minutes. Check that the preset alarm limit is appropriate.



2.15.11. Alarm no. 18:13 "AYC Heat, above set point alarm limit"

The alarm is enabled when the "All Year Comfort" function is activated for "Chilled water" or Chilled and heated water" and the alarm is manually activated under Alarm priority.
The alarms trip when the water temperature for AYC Cool is above the relevant alarm limit in relation to the set point for more than 20 minutes. Check that the preset alarm limit is appropriate.

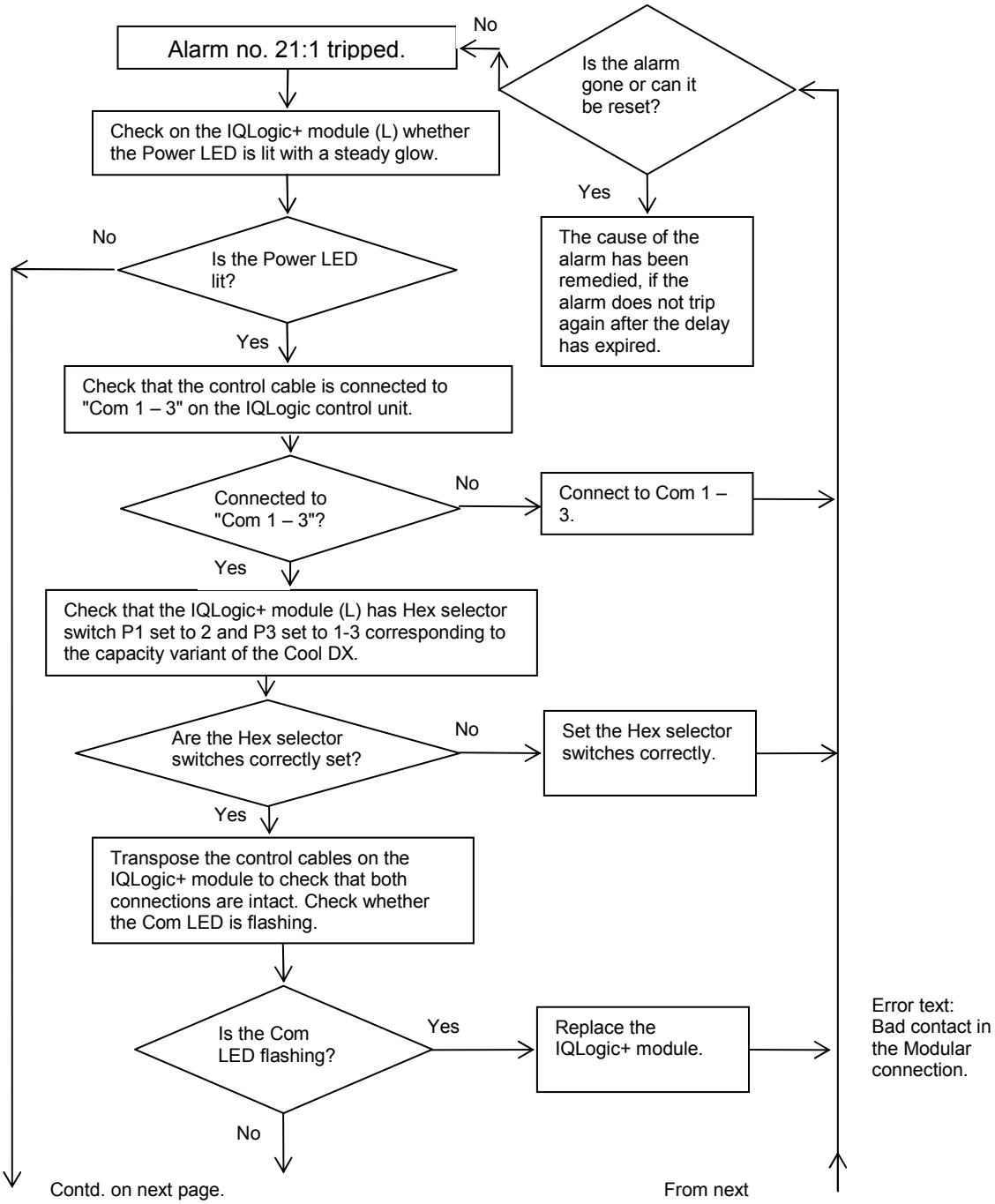


2.16. Alarm group 21: COOL DX

2.16.1. Alarm no. 21:1 "COOL DX, I/O module no. 2 communication error"

The alarm is enabled when the ”COOL DX” cooling function is selected as ”Economy”, Comfort” or ”COOL DX Top”.

The alarm trips if the control unit does not achieve correct communication with the module.



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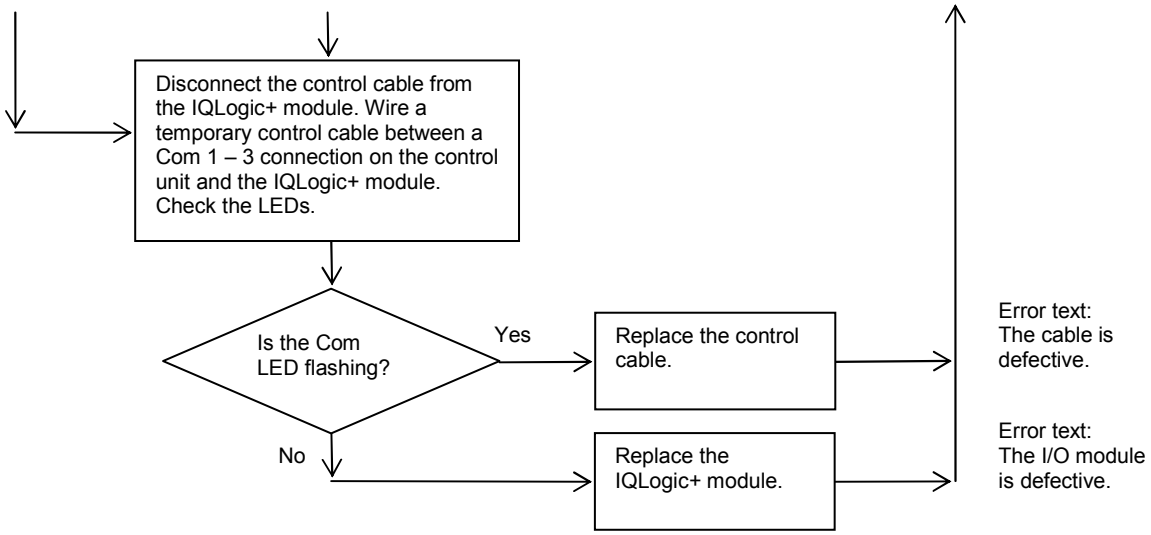
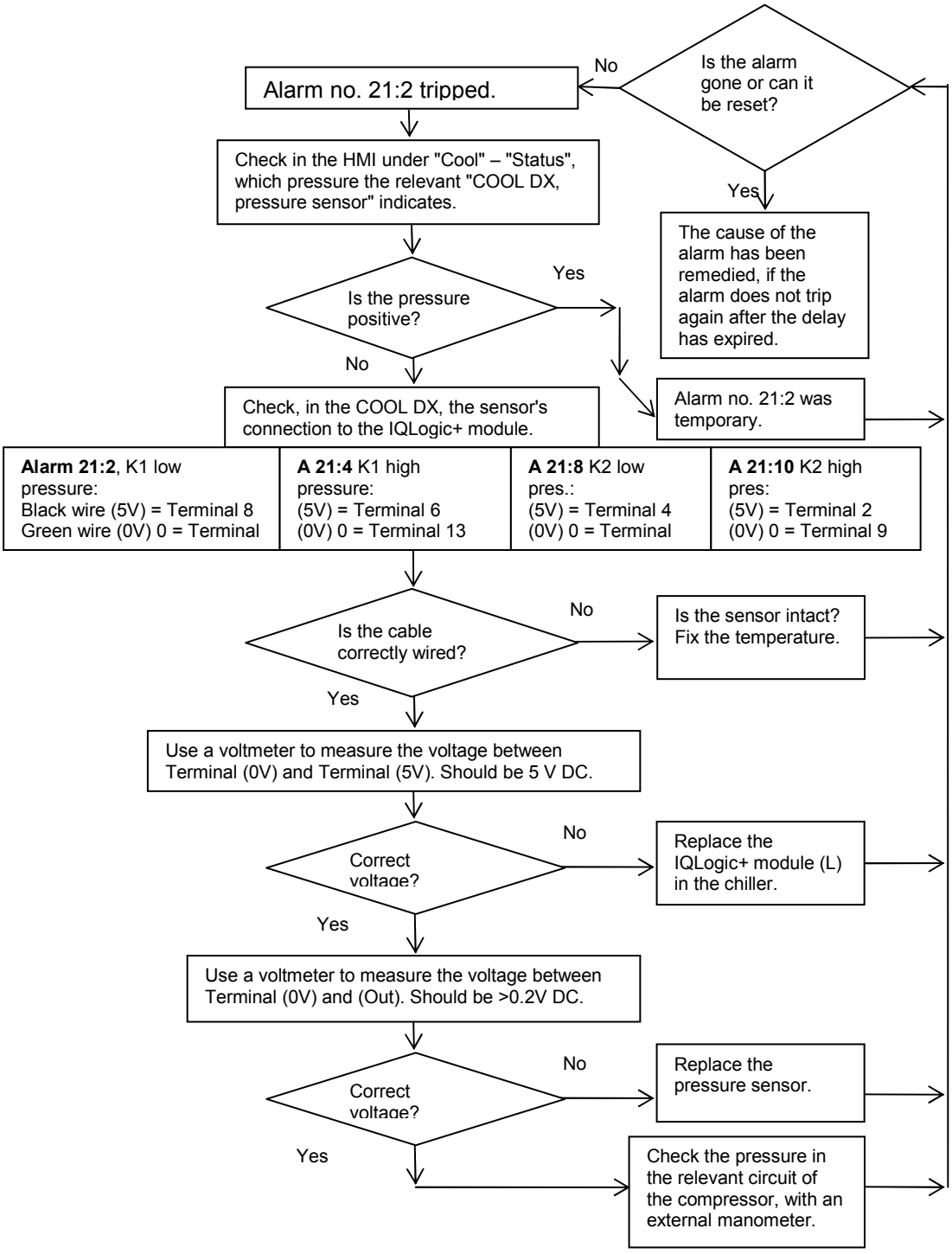


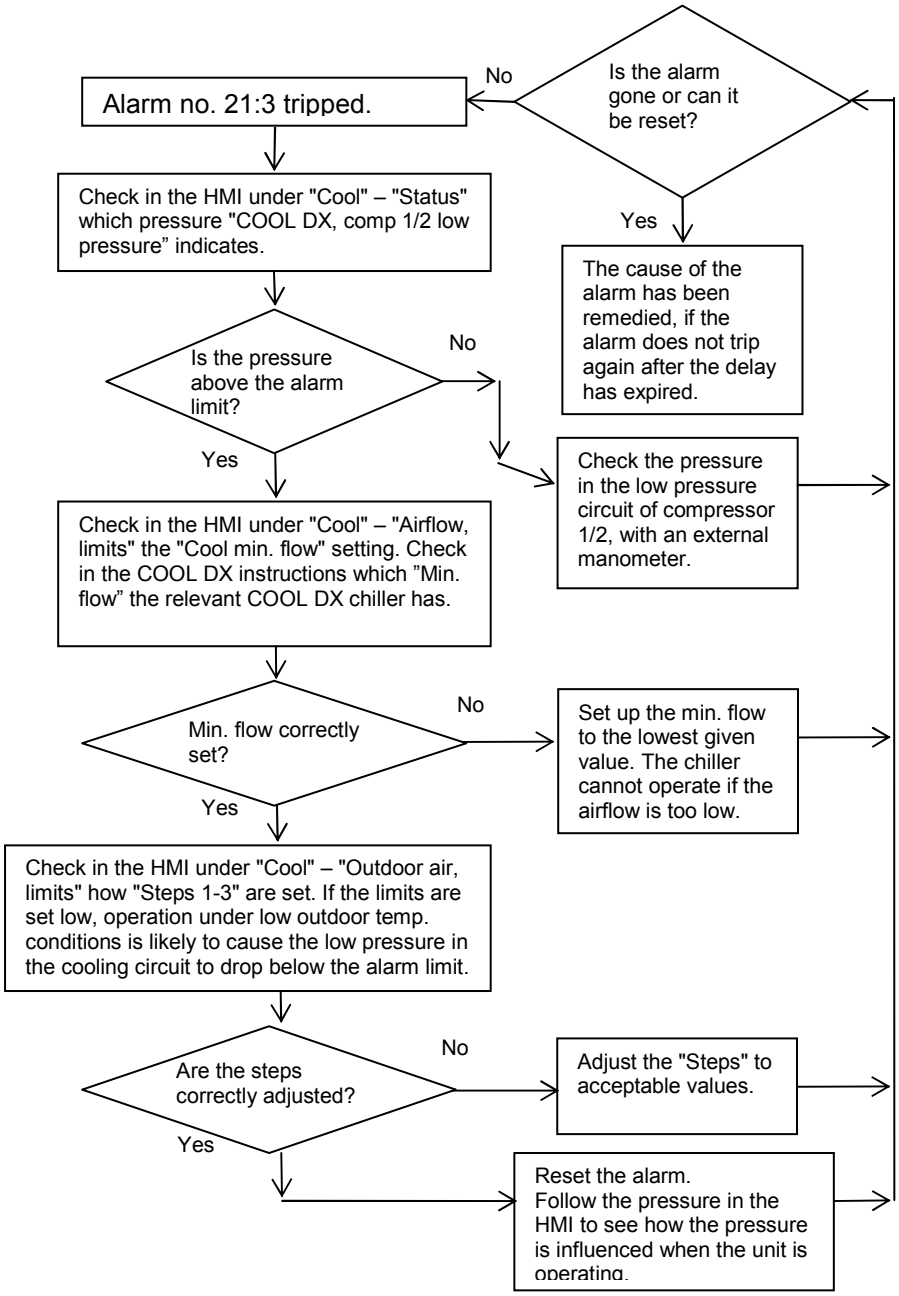
2.16.2. Alarm no. 21:2 "COOL DX, compressor 1, low pressure sensor defective"

The alarm is enabled when the ”COOL DX” cooling function is selected as ”Economy”, Comfort” or ”COOL DX Top”.
The alarms trip when the signal from low pressure sensor B2:1 is < 0.2V DC.



2.16.3. Alarm no. 21:3 "COOL DX, compressor 1, low pressure sensor below alarm limit"

The alarm is enabled when the ”COOL DX” cooling function is selected as ”Economy”, Comfort” or ”COOL DX Top”.
The alarms trip when the signal from low pressure sensor B2:1 is below the preset alarm limit (3.0 bar = 0.8V DC.



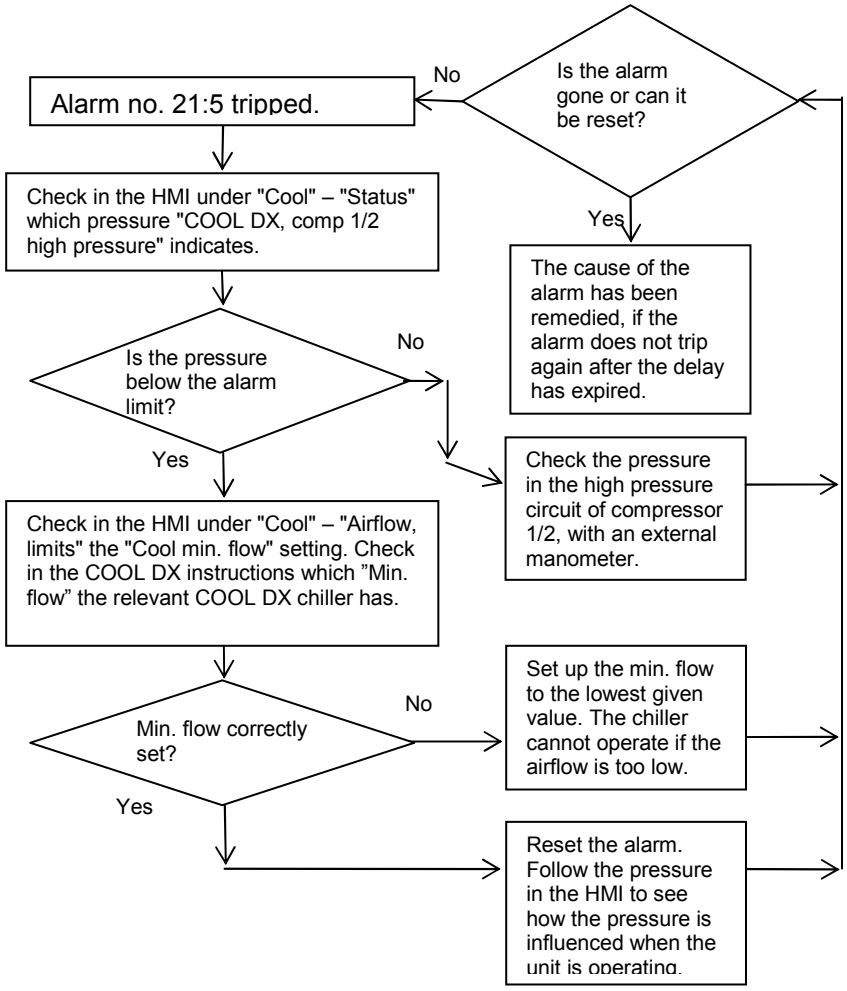
2.16.4. Alarm no. 21:4 "COOL DX, compressor 1, high pressure sensor defective"

The alarm is enabled when the ”COOL DX” cooling function is selected as ”Economy”, Comfort” or ”COOL DX Top”.
The alarms trip when the signal from low pressure sensor B1:1 is < 0.2V DC.

For troubleshooting see Alarm no. 21:2 above.

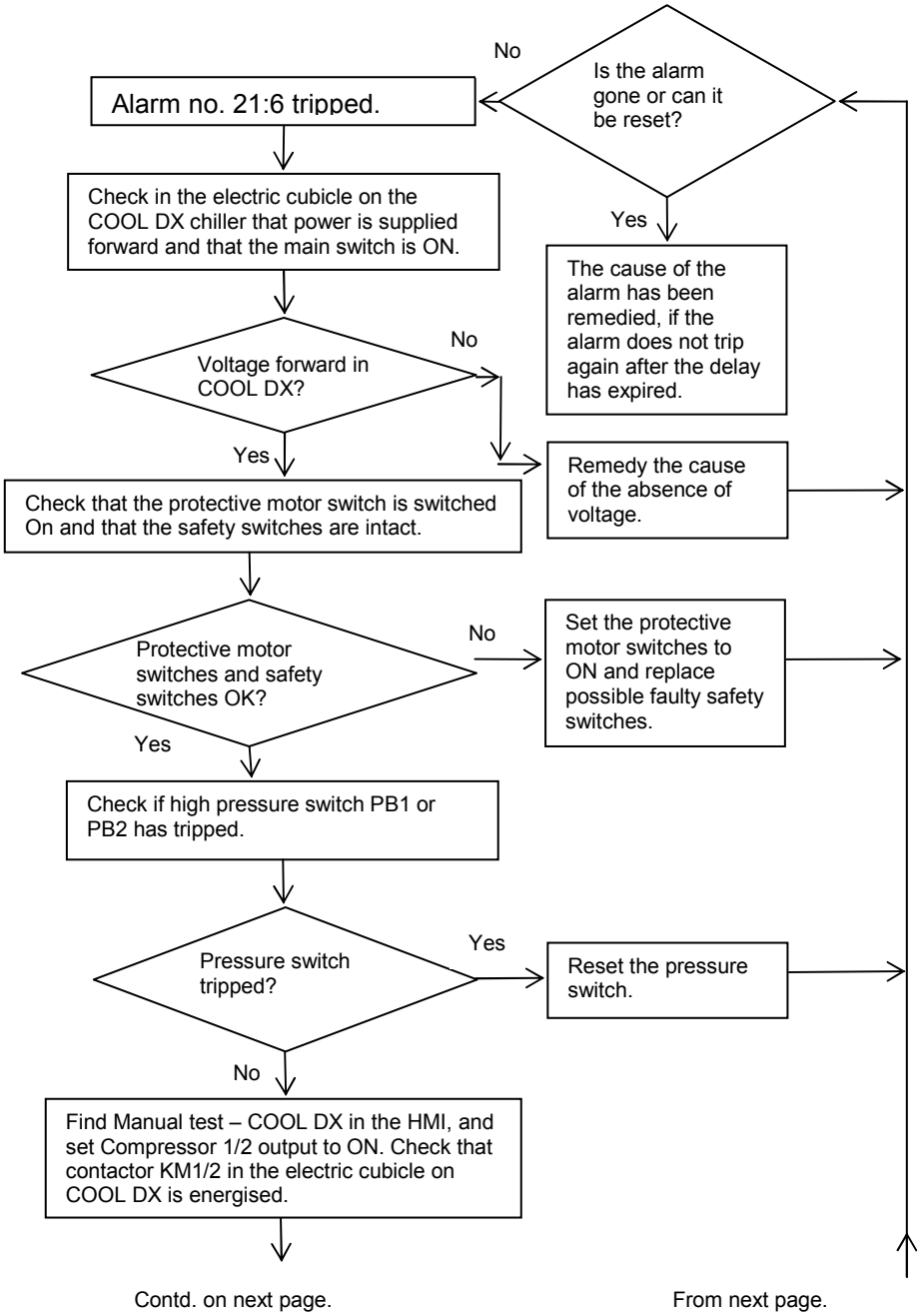
2.16.5. Alarm no. 21:5 "COOL DX, compressor 1, high pressure sensor above alarm limit"

The alarm is enabled when the ”COOL DX” cooling function is selected as ”Economy”, Comfort” or ”COOL DX Top”.
The alarms trip when the signal from low pressure sensor B1:1 is above the preset alarm limit (40.5 bar = 4.1V DC).



2.16.6. Alarm no. 21:6 "COOL DX, compressor 1, monitoring tripped"

The alarm is enabled when the ”COOL DX” cooling function is selected as ”Economy”, Comfort” or ”COOL DX Top”.
The alarms trip for COOL DX when the control unit does not detect that the feedback on the digital input corresponds to the signal on the digital output.



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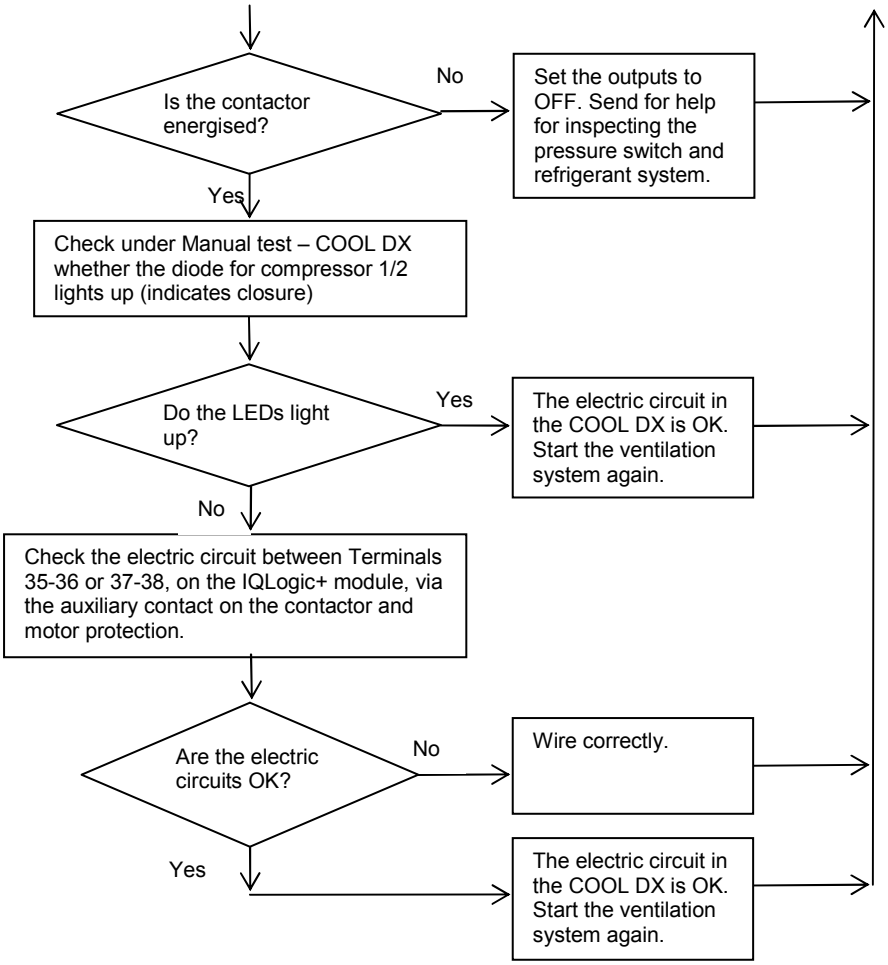
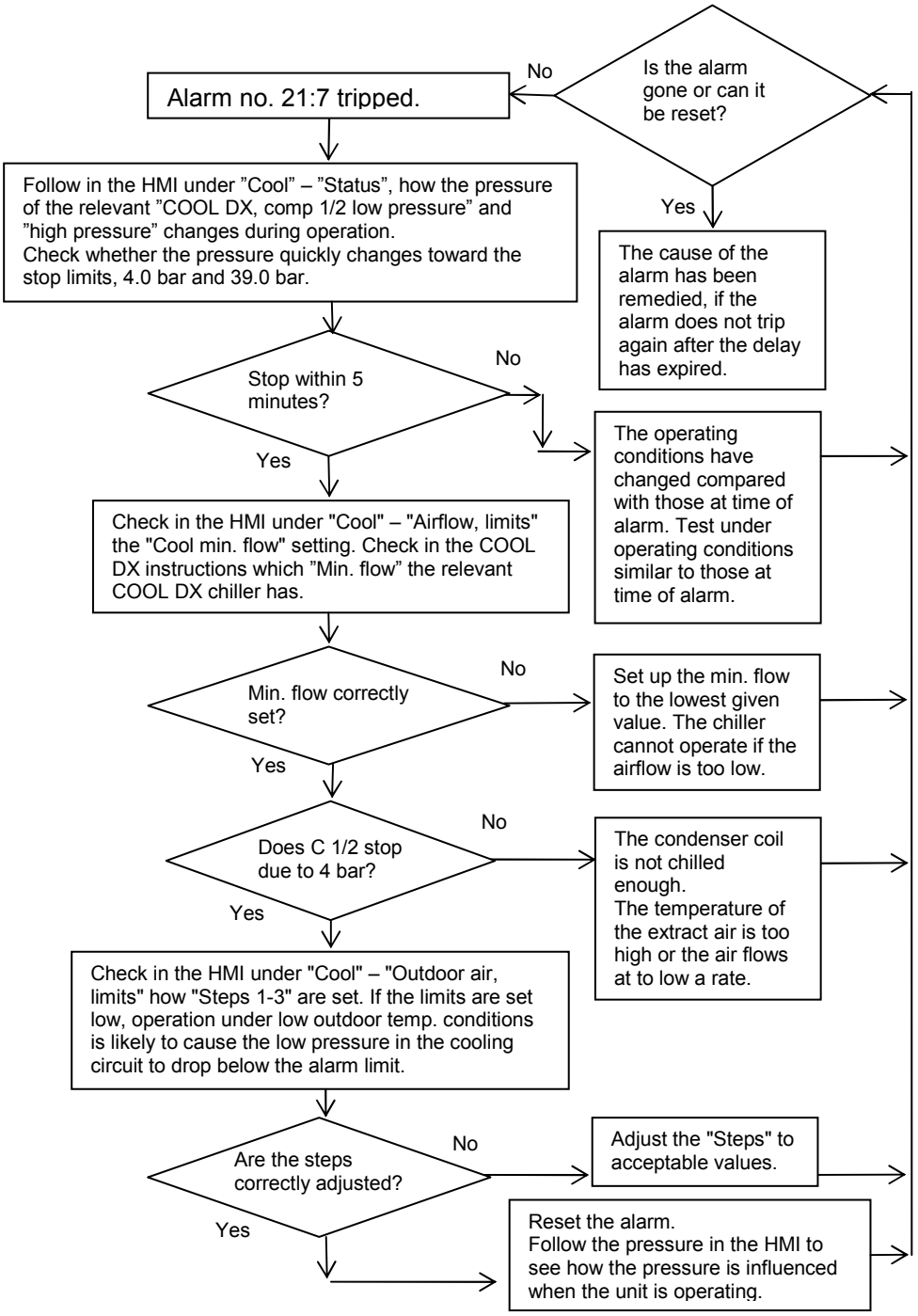


2.16.7. Alarm no. 21:7 "COOL DX, compressor 1, restart error"

The alarm is enabled when the ”COOL DX” cooling function is selected as ”Economy”, Comfort” or ”COOL DX Top”.
The alarms trip when the control unit, due to a in-operation pressure switch stop, has restarted cooling compressor 1 more than 10 times in 1 hour.



2.16.8. Alarm no. 21:8 "COOL DX, compressor 2, low pressure sensor defective"

The alarm is enabled when the ”COOL DX” cooling function is selected as ”Economy”, Comfort” or ”COOL DX Top”.
The alarms trip when the signal from low pressure sensor B2:2 is < 0.2V DC.
For troubleshooting see Alarm no. 21:2 above.

2.16.9. Alarm no. 21:9 "COOL DX, compressor 2, low pressure sensor below alarm limit"

The alarm is enabled when the ”COOL DX” cooling function is selected as ”Economy”, Comfort” or ”COOL DX Top”.
The alarms trip when the signal from low pressure sensor B2:2 is below the preset alarm limit (3.0 bar = 0.8V DC.
For troubleshooting see Alarm no. 21:3 above.

2.16.10. Alarm no. 21:10 "COOL DX, compressor 2, high pressure sensor defective"

The alarm is enabled when the ”COOL DX” cooling function is selected as ”Economy”, Comfort” or ”COOL DX Top”.
The alarms trip when the signal from low pressure sensor B1:2 is < 0.2V DC.
For troubleshooting see Alarm no. 21:2 above.

2.16.11. Alarm no. 21:11 "COOL DX, compressor 2, high pressure sensor above alarm limit"

The alarm is enabled when the ”COOL DX” cooling function is selected as ”Economy”, Comfort” or ”COOL DX Top”.
The alarms trip when the signal from low pressure sensor B1:2 is above the preset alarm limit (40.5 bar = 4.1V DC).
For troubleshooting see Alarm no. 21:5 above.

2.16.12. Alarm no. 21:12 "COOL DX, compressor 2, monitoring tripped"

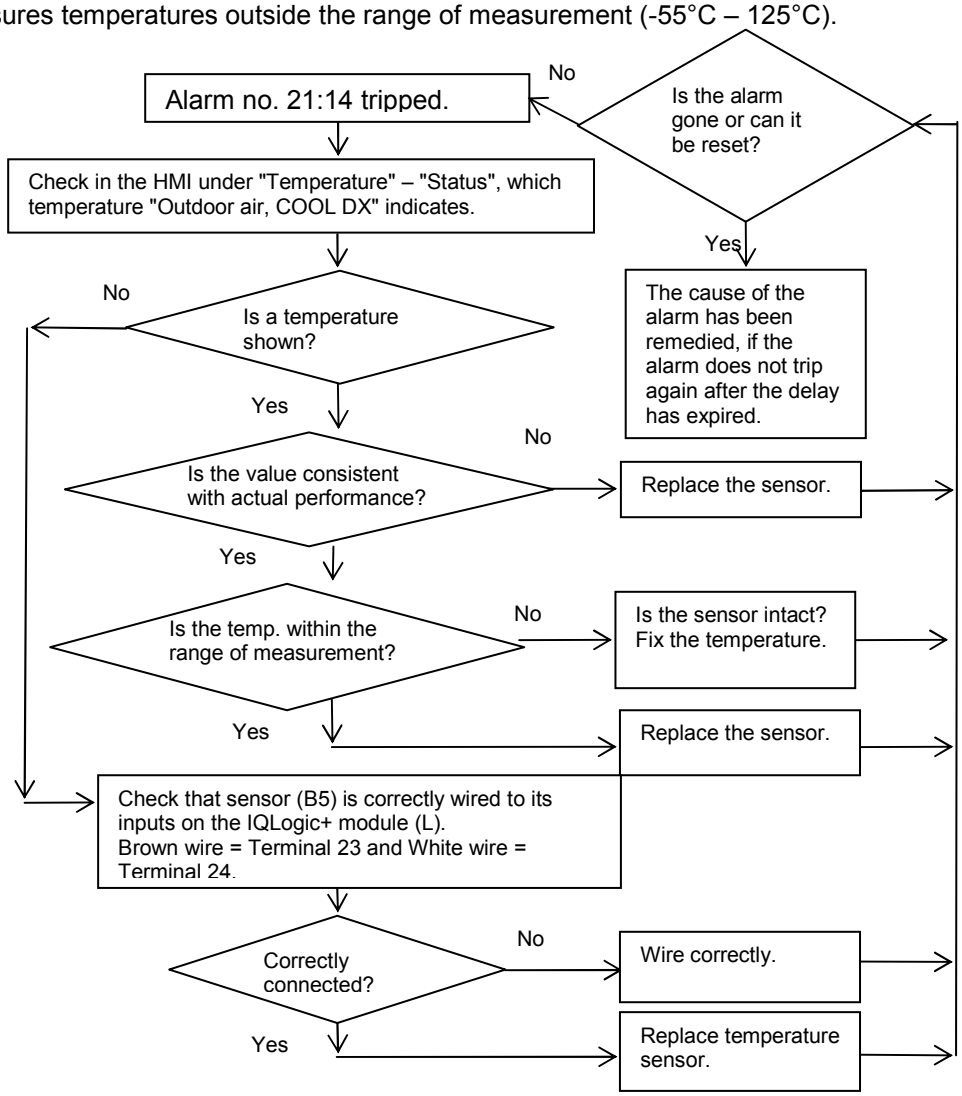
The alarm is enabled when the ”COOL DX” cooling function is selected as ”Economy”, Comfort” or ”COOL DX Top”.
The alarms trip for COOL DX when the control unit does not detect that the feedback on the digital input corresponds to the signal on the digital output.
For troubleshooting see Alarm no. 21:2 above.

2.16.13. Alarm no. 21:13 "COOL DX, compressor 2, restart error"

The alarm is enabled when the ”COOL DX” cooling function is selected as ”Economy”, Comfort” or ”COOL DX Top”.
The alarms trip when the control unit, due to a in-operation pressure switch stop, has restarted cooling compressor 1 more than 10 times in 1 hour.
For troubleshooting see Alarm no. 21:7 above.

2.16.14. Alarm no. 21:14 "COOL DX, outdoor temperature sensor defective"

The alarm is enabled when the ”COOL DX” cooling function is selected as ”Economy”, Comfort” or ”COOL DX Top”.
The alarms trip when the control unit does not achieve communication with the temperature sensor or when the sensor measures temperatures outside the range of measurement (-55°C – 125°C).



2.16.15. Alarm no. 21:15 "COOL DX, phase sequence monitor tripped"

The alarm is enabled when the ”COOL DX” cooling function is selected as ”Economy”, Comfort” or ”COOL DX Top”.
The alarms trip when the PSC relay, which monitors the phase sequence on incoming power, initiates an alarm due to wrong phase sequence.

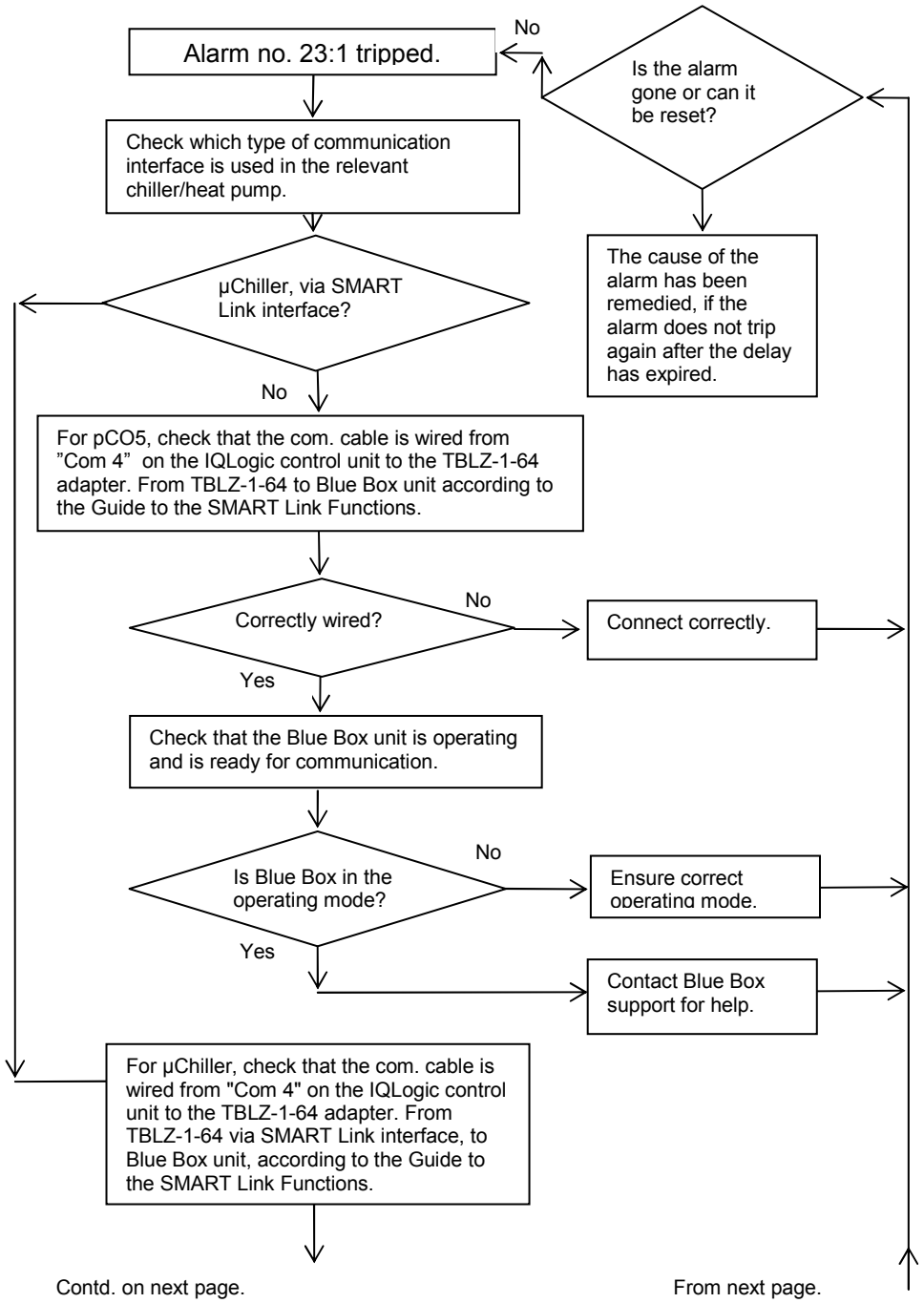
Check that there is voltage on all 3 incoming phases.
Check that the main switch is set to ON.
Check that all the safety switches and protective motor switches are switched on.

Perform a test by switching the order of two of the incoming phases Important! Isolate the power supply in the relevant electrical distribution box.

2.17. Alarm group 23: SMART LINK

2.17.1. Alarm 23:1 "SMART Link, communication error"

The alarm is enabled when any of the "SMART Link" functions is selected.
The alarm trips if the control unit does not achieve correct communication with the Blue Box unit.



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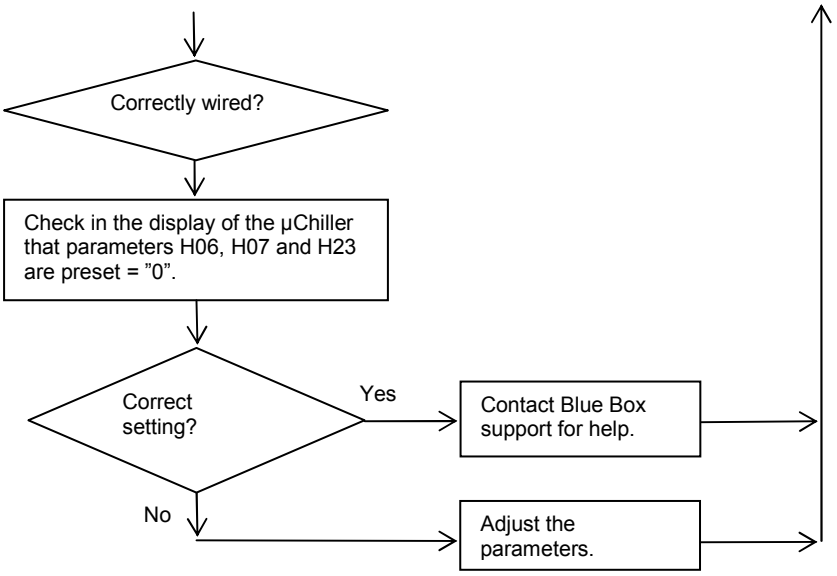


2.17.2. Alarm no. 23:2-4 "SMART Link, alarm levels 1-3 tripped"

The alarm is enabled when any of the "SMART Link" functions is selected.
The alarms trip when some malfunction has arisen in the Blue Box control system and the Blue Box control control system transmits information via communication to the IQLogic control unit.

Check in the Blue Box control system which alarm has tripped.

2.17.3. Alarm no. 23:10 "AQUA Link, I/O module no. 5 communication error"

The alarm is enabled when the ”SMART Link” functions are selected for "Water, chiller" and the AQUA Link function is selected = On.
The alarm trips when the control unit does not achieve correct communication with IQLogic+ module 5 (S), located in the AQUA Link electrical cubicle.

For troubleshooting see Alarm no. 3:1 above.

2.17.4. Alarm no. 23:10 "AQUA Link, I/O module no. 5 communication error"

The alarm is enabled when the "SMART Link" functions are selected for "Water, chiller", the AQUA Link function is selected = On and the pump alarm is enabled.

The alarm trips when the current status on the alarm input (closed or open), on Terminals 11-12 on IQLogic+ module 5 (S) in the AQUA Link enclosure correspond to the selected alarm function.
Optional functions: "Alarm on open contact", "Alarm on closed contact" and "Contactor function".
Contactor function means that the alarm input must close within 3 seconds after the Pump output has been energised. Used when a contactor is used for controlling the pump.

- Check under ”SMART Link” – "Status" the status of the ”AQUA Link, pump output” and ”AQUA Link, alarm input”.

2.17.5. Alarm no. 23:11 "AQUA Link, pump monitoring tripped"

The alarm is enabled when the "SMART Link" functions are selected for "Water, chiller". The AQUA Link function is selected = On, and the pump alarm is enabled.

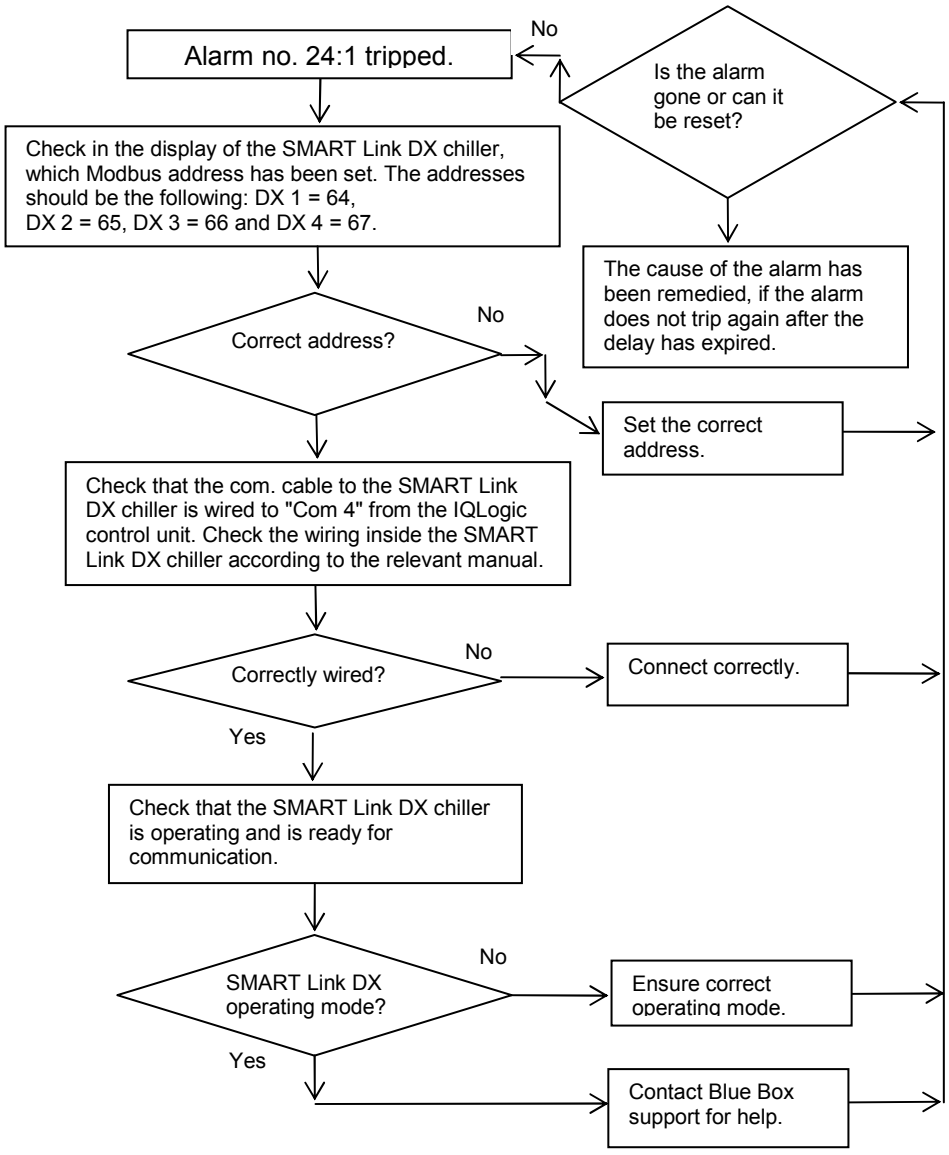
The alarm trips when the current status on the alarm input (closed or open), on Terminals 11-12 on IQlogic+ module 5 (S) in the AQUA Link enclosure, correspond to the selected alarm function.
Optional functions: "Alarm at open contact", "Alarm at closed contact" and "Contactor function".
Contactor function means that the alarm input must close within 3 seconds after the Pump output has been energised. The function is used when a contactor is used for controlling the pump. An alarm is also initiated if the alarm input is closed when the pump should not be in operation.

- Check under ”SMART Link – Status" the status of the ”AQUA Link, pump output” and ”AQUA Link, alarm input”.

2.18. Alarm group 24: SMART LINK, DX

2.18.1. Alarm no. 24:1 "SMART Link, no. 1 communication error"

The alarm is enabled when any of the "SMART Link, DX" functions is selected.
The alarm trips if the IQLogic control unit does not achieve correct communication with DX chiller no. 1.



2.18.2. Alarm no. 24:2 "SMART Link, no. 1 tripped"

The alarm is enabled when any of the "SMART Link DX" functions is selected.

The alarms trip when some malfunction has arisen in "SMART Link DX no. 1" and the "SMART Link no. 1" control unit transmits common fault alarm information via communication to the IQLogic control unit.
Check in the "SMART Link no.1" control system which alarm has tripped

2.18.3. Alarm no. 24:4 "SMART Link, no. 2 communication error"

The alarm is enabled when one of the "SMART Link, DX " functions is selected and 2 is selected as "Number of connected units".
The alarm trips if the IQLogic control unit does not achieve correct communication with DX chiller no. 2.
For troubleshooting see Alarm no. 24:1 above.

2.18.4. Alarm no. 24:5 "SMART Link, no. 2 tripped"

The alarm is enabled when one of the "SMART Link, DX" functions is selected and 2 is selected as "Number of connected units".
The alarms trip when some malfunction has arisen in "SMART Link DX no. 2" and the "SMART Link no. 2" control unit transmits common fault alarm information via communication to the IQLogic control unit.
Check in the "SMART Link no.2" control system which alarm has tripped

2.18.5. Alarm no. 24:7 "SMART Link, no. 3 communication error"

The alarm is enabled when one of the "SMART Link, DX " functions is selected and 3 is selected as "Number of connected units".
The alarm trips if the IQLogic control unit does not achieve correct communication with DX chiller no. 3.
For troubleshooting see Alarm no. 24:1 above.

2.18.6. Alarm no. 24:8 "SMART Link, no. 3 tripped"

The alarm is enabled when one of the "SMART Link, DX" functions is selected and 3 is selected as "Number of connected units".
The alarms trip when some malfunction has arisen in "SMART Link DX no. 3" and the "SMART Link no. 3" control unit transmits common fault alarm information via kommunikationen to the IQLogic control unit.
Check in the "SMART Link no. 3" control system which alarm has tripped

2.18.7. Alarm no. 24:10 "SMART Link, no. 4 communication error"

The alarm is enabled when one of the "SMART Link, DX " functions is selected and 4 is selected as "Number of connected units".
The alarm trips if the IQLogic control unit does not achieve correct communication with DX chiller no. 4.
For troubleshooting see Alarm no. 24:1 above.

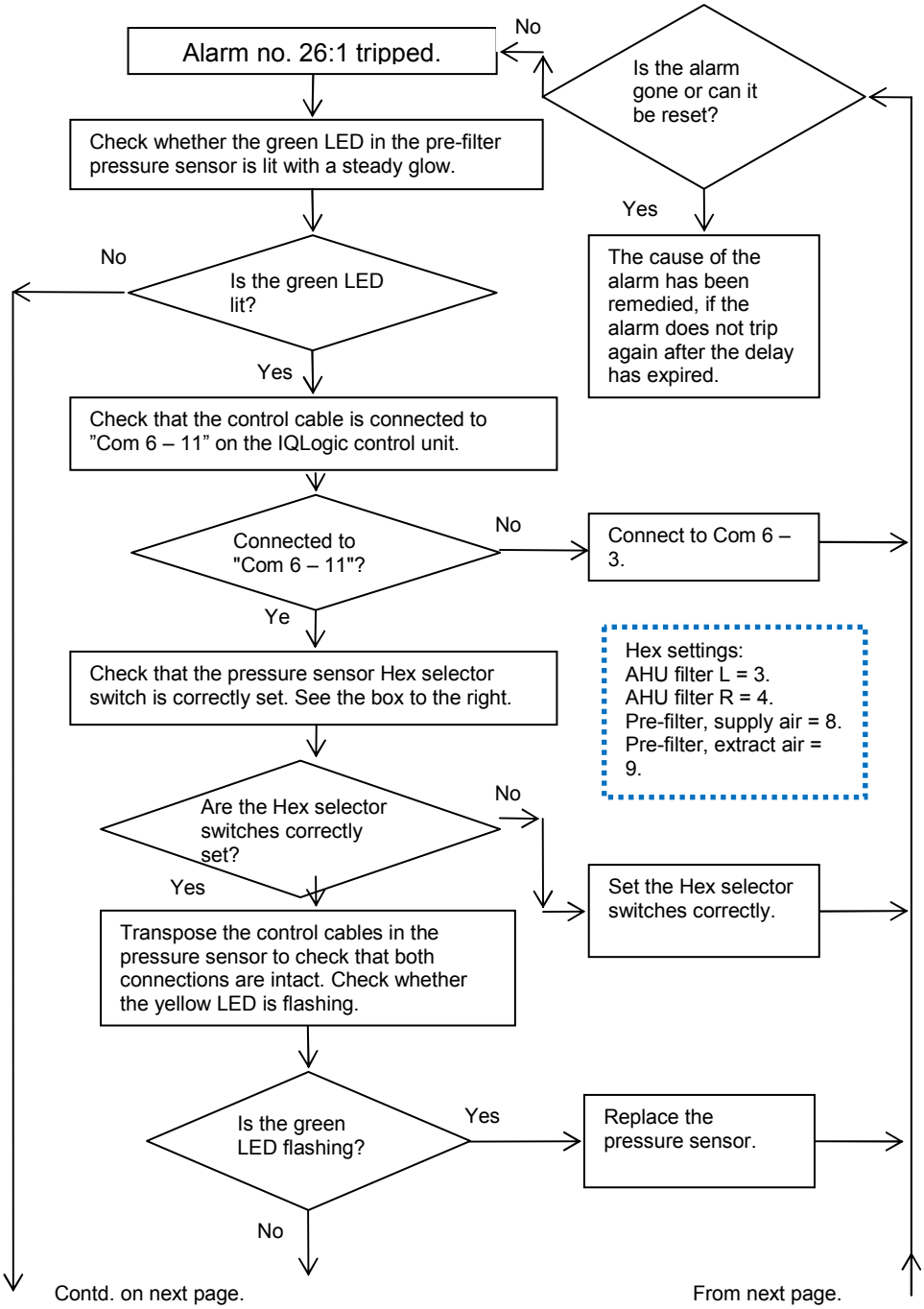
2.18.8. Alarm no. 24:8 "SMART Link, no. 4 tripped"

The alarm is enabled when one of the "SMART Link, DX" functions is selected and 4 is selected as "Number of connected units".
The alarms trip when some malfunction has arisen in "SMART Link DX no. 4" and the "SMART Link no. 4" control unit transmits common fault alarm information via communication to the IQLogic control unit.
Check in the "SMART Link no. 4" control system which alarm has tripped

2.19. Alarm group 26: PRE-FILTERS

2.19.1. Alarm no. 26:1 "Pre-filter, supply air pressure sensor no. 8 communication error".

The alarm is enabled when the "Pre-filter" function is selected for "Supply air" or "Supply and extract air". The alarm trips if the control unit does not achieve correct communication with pressure sensor no. 8.



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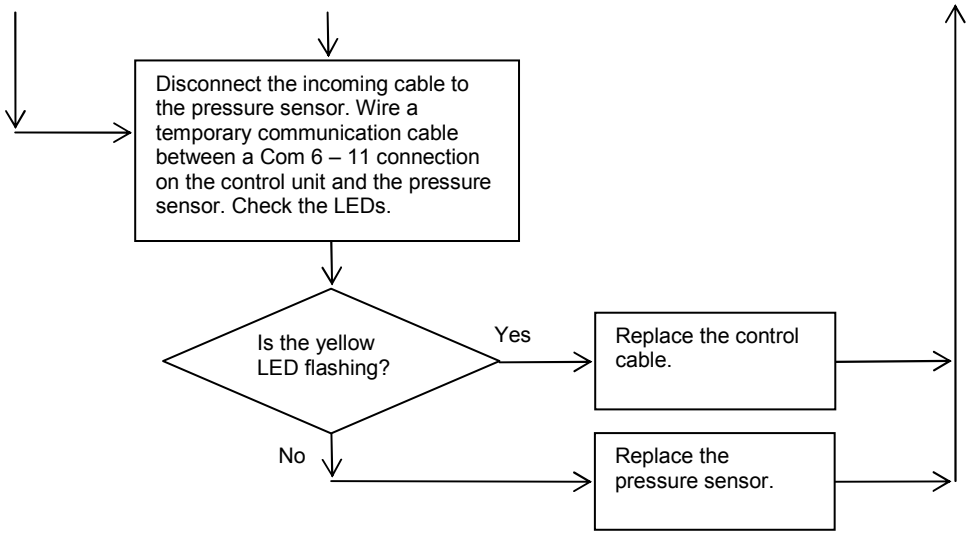
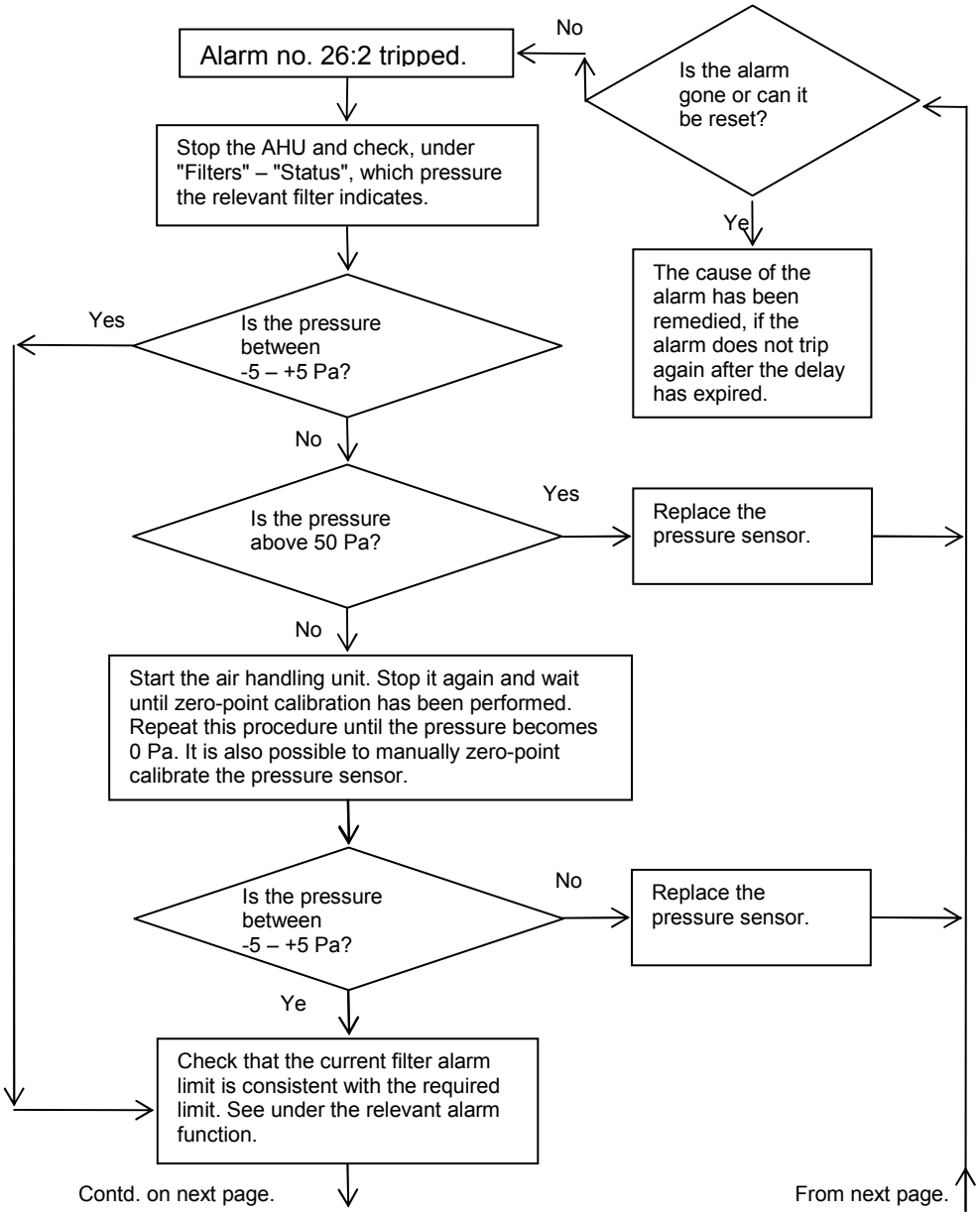


2.19.2. Alarm no. 26:2 "Pre-filter, supply air, dirty"

The alarm is enabled when the "Pre-filter" function is selected for "Supply air" or "Supply and extract air" and the flow through the supply air filter is more than half the flow being used for filter calibration.
The alarms trip when the pressure drop across the filter has been above the alarm limit for more than 10 minutes at a stretch.



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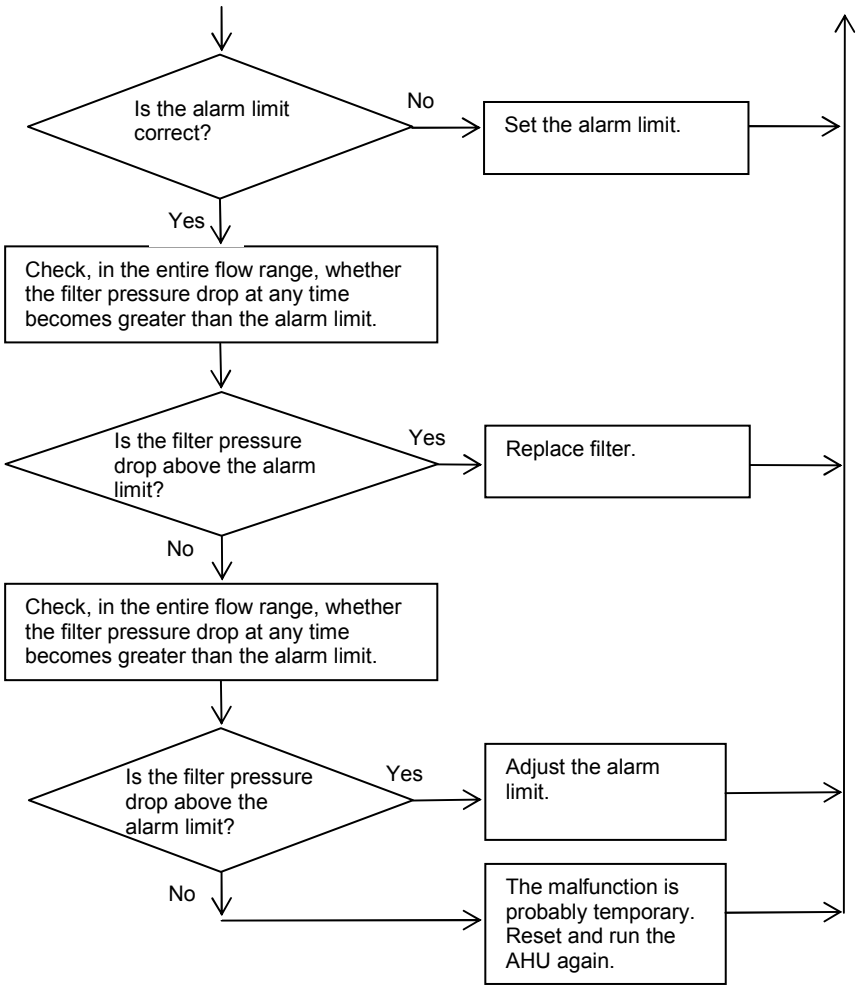


2.19.3. Alarm no. 26:7 "Pre-filter, extract air pressure sensor no. 9 communication error".

The alarm is enabled when the "Pre-filter" function is selected for "Extract air" or "Supply and extract air".
The alarm trips if the control unit does not achieve correct communication with pressure sensor no. 9.

For troubleshooting see Alarm no. 26:1 above.

2.19.4. Alarm no. 26:8 "Pre-filter, extract air, dirty"

The alarm is enabled when the "Pre-filter" function is selected for "Extract air" or "Supply and extract air" and the flow through the supply air filter is more than half the flow used for filter calibration.
The alarms trip when the pressure drop across the filter has been above the alarm limit for more than 10 minutes at a stretch.

For troubleshooting see Alarm no. 26:2 above.

2.20. Alarm group 27: AIR HANDLING UNIT FILTERS

2.20.1. Alarm no. 27:1 "Air handling unit filter, supply air pressure sensor no. 3/4, communication error"

The alarm is always enabled for the GOLD RX, PX and CX units.
The alarm trips if the control unit does not achieve correct communication with the pressure sensor for the supply air filter.
If the filter's location inside the AHU is to the left = Address 3 and to the right = Address 4.

For troubleshooting see Alarm no. 26:1 above.

2.20.2. Alarm no. 27:2 "Air handling unit filter, supply air, dirty"

The alarm is always enabled for GOLD RX, PX and CX units and the flow through the supply air filter is more than half the flow used for filter calibration.
The alarms trip when the pressure drop across the filter has been above the alarm limit for more than 10 minutes at a stretch.

For troubleshooting see Alarm no. 26:2 above.

2.20.3. Alarm no. 27:7 "Air handling unit filter, extract air pressure sensor no. 3/4, communication error"

The alarm is always enabled for the GOLD RX, PX and CX units.
The alarm trips if the control unit does not achieve correct communication with the pressure sensor for the extract air filter.
If the filter's location inside the AHU is to the left = Address 3 and to the right = Address 4.

For troubleshooting see Alarm no. 26:1 above.

2.20.4. Alarm no. 27:8 "Air handling unit filter, extract air, dirty"

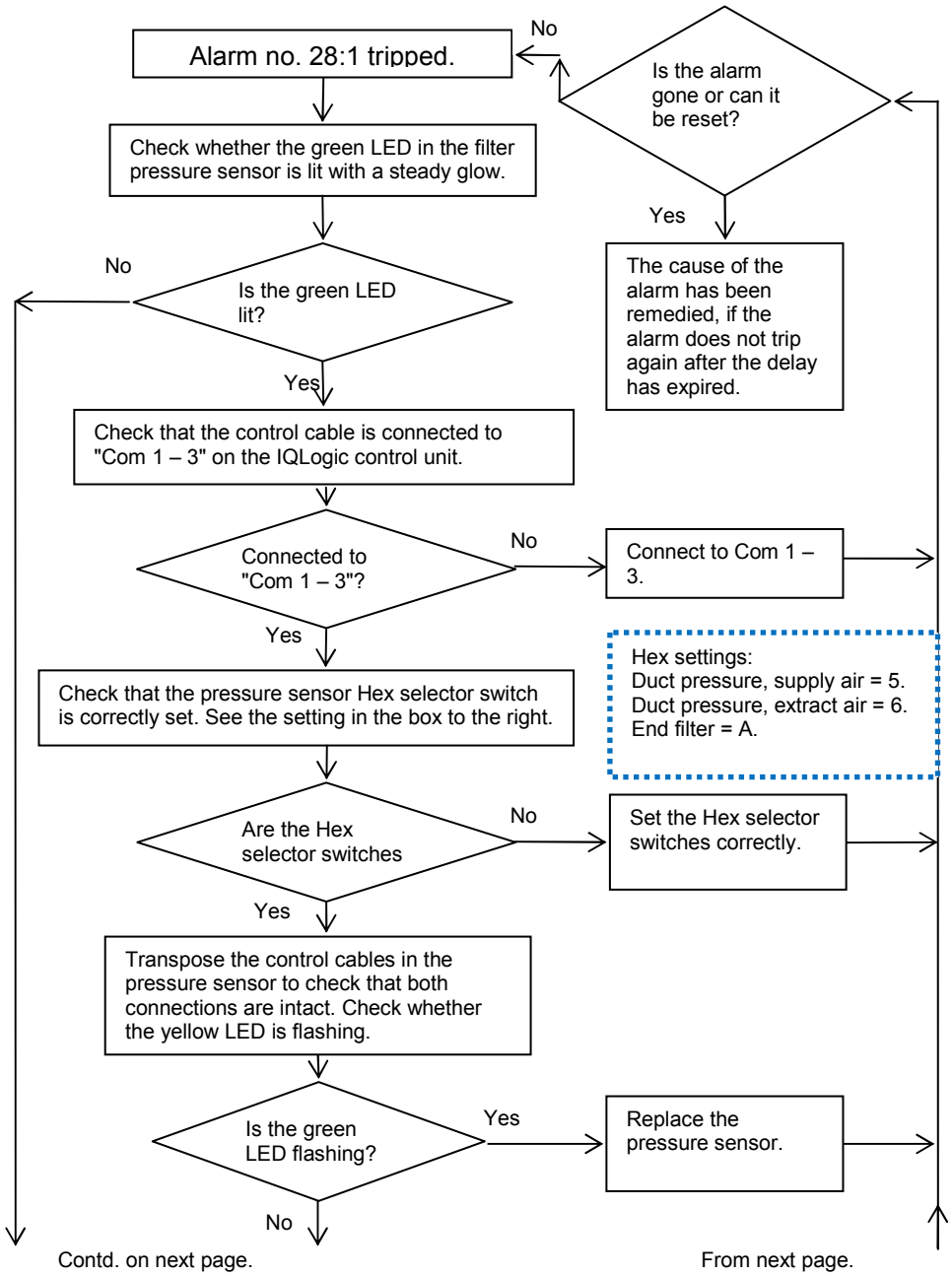
The alarm is always enabled for GOLD RX, PX and CX units and the flow through the supply air filter is more than half the flow used for filter calibration.
The alarms trip when the pressure drop across the filter has been above the alarm limit for more than 10 minutes at a stretch.

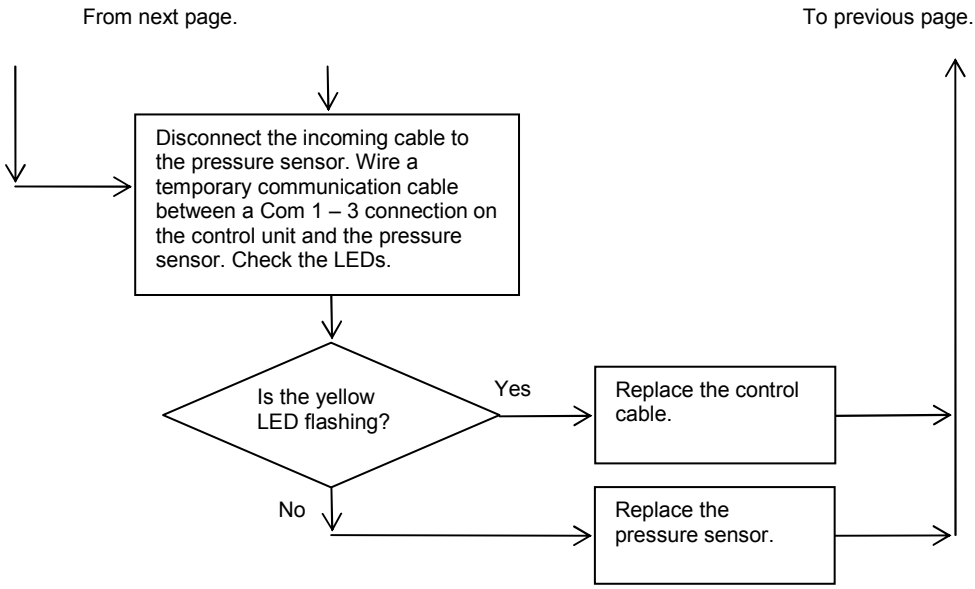
For troubleshooting see Alarm no. 26:2 above.

2.21. Alarm group 28: END FILTERS

2.21.1. Alarm no. 28:1 "End filter, supply air pressure sensor no. A communication error".

The alarm is enabled when the End filter function is activated.
The alarm trips if the control unit does not achieve correct communication with the pressure sensor for the end filter.





2.21.2. Alarm no. 28:2 "End filter, supply air, dirty"

The alarm is enabled when the End filter function is selected as active and the flow through the end filter is more than half the flow used for filter calibration.
The alarms trip when the pressure drop across the filter has been above the alarm limit for more than 10 minutes at a stretch.

For troubleshooting see Alarm no. 26:2 above.

2.22. Alarm group 30: FLOW MEASUREMENT

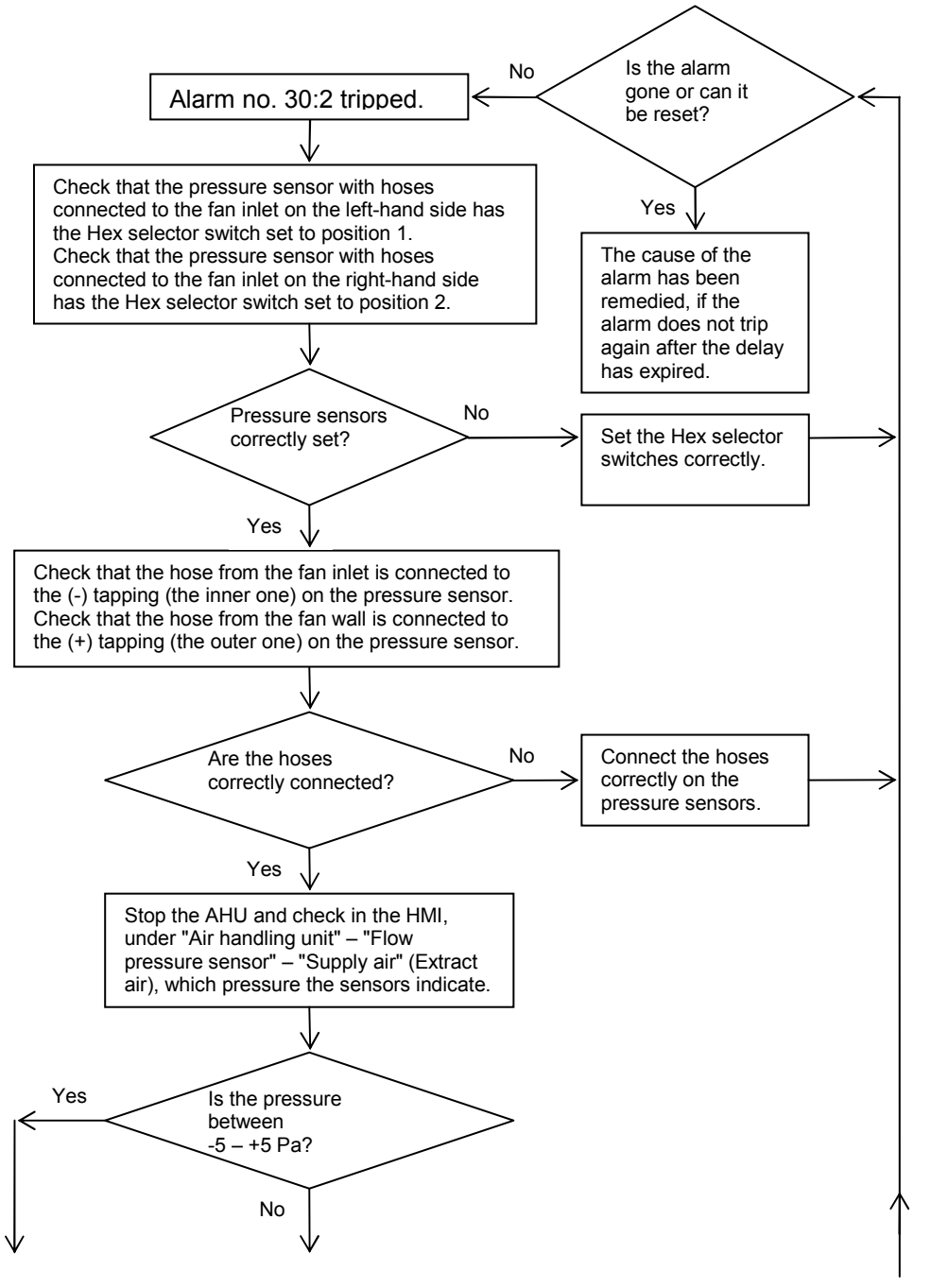
2.22.1. Alarm no. 30:1 "Flow measurement, supply air pressure sensor no. 1/2, communication error"

The alarm is always enabled for all GOLD units.
The alarm trips if the control unit does not achieve correct communication with the pressure sensor for the supply air flow.
The location of the fan inside the AHU determines the following address: Fan to the left = Address 1 and to the right = Address 2.

For troubleshooting see Alarm no. 17:2 above.

2.22.2. Alarm no. 30:2 "Flow measurement, supply airflow below set point"

The alarm is enabled for all the GOLD units when under "Airflow", "Regulation mode" for "Supply air" is selected to "Airflow".
The alarms trip when the flow has been more than 10% below the relevant flow set point for more than 20 minutes at a stretch.



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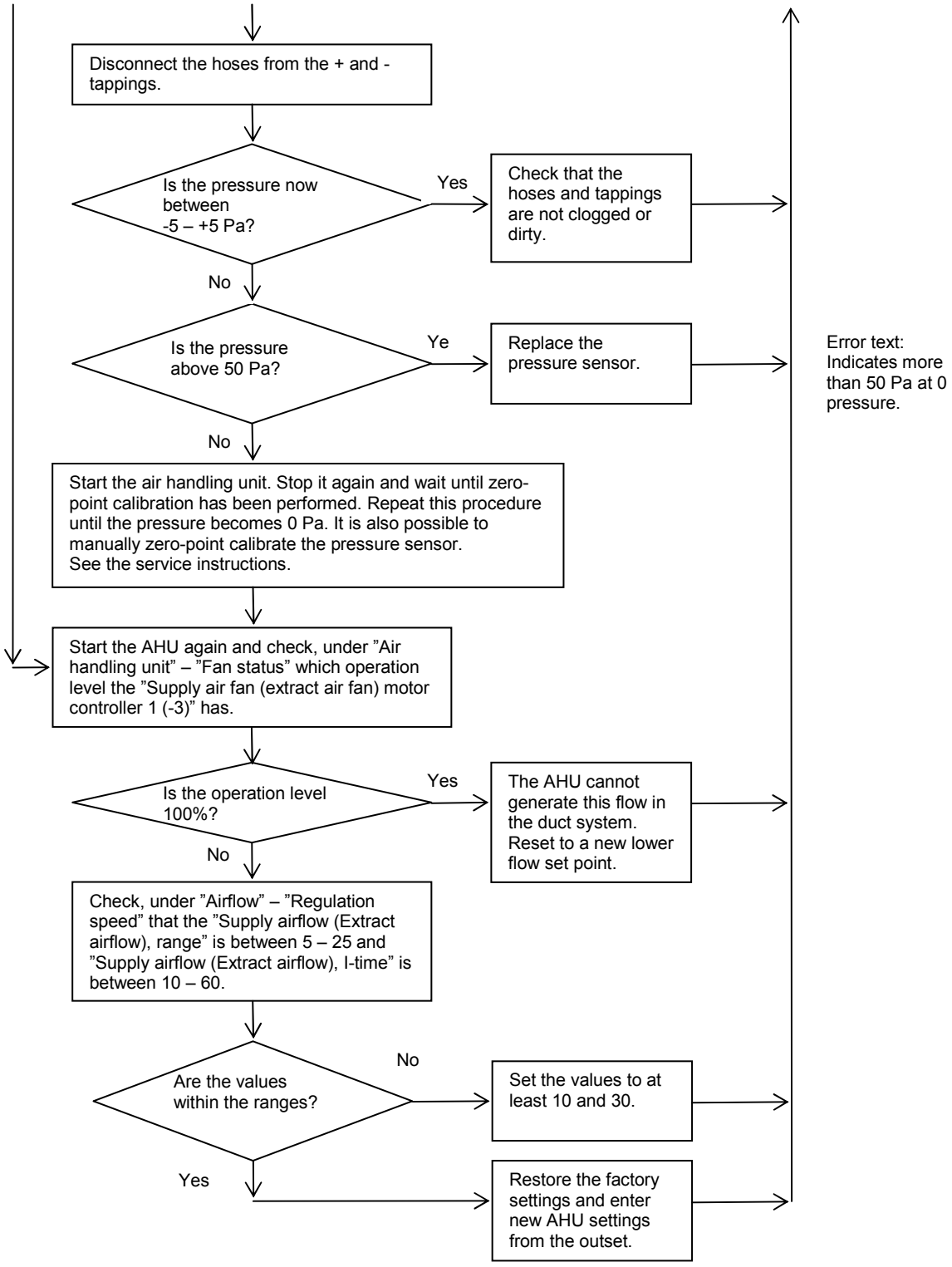
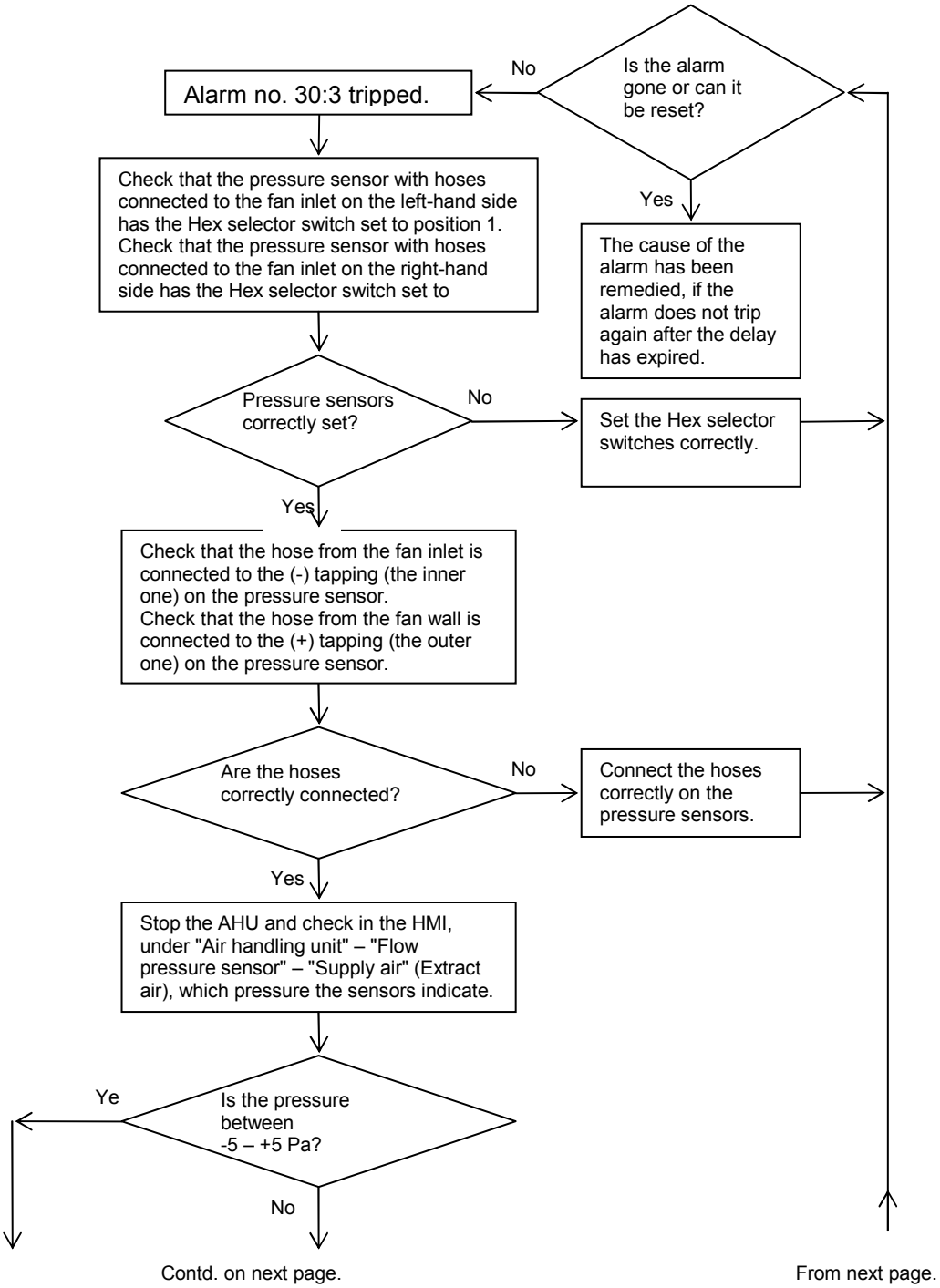


2.22.3. Alarm no. 30:3 "Flow measurement, supply airflow above set point"

The alarm is enabled for all the GOLD units when under "Airflow", "Regulation mode" for "Supply air" is selected to "Airflow".
The alarms trip when the flow has been more than 10% above the relevant flow set point for more than 20 minutes at a stretch.



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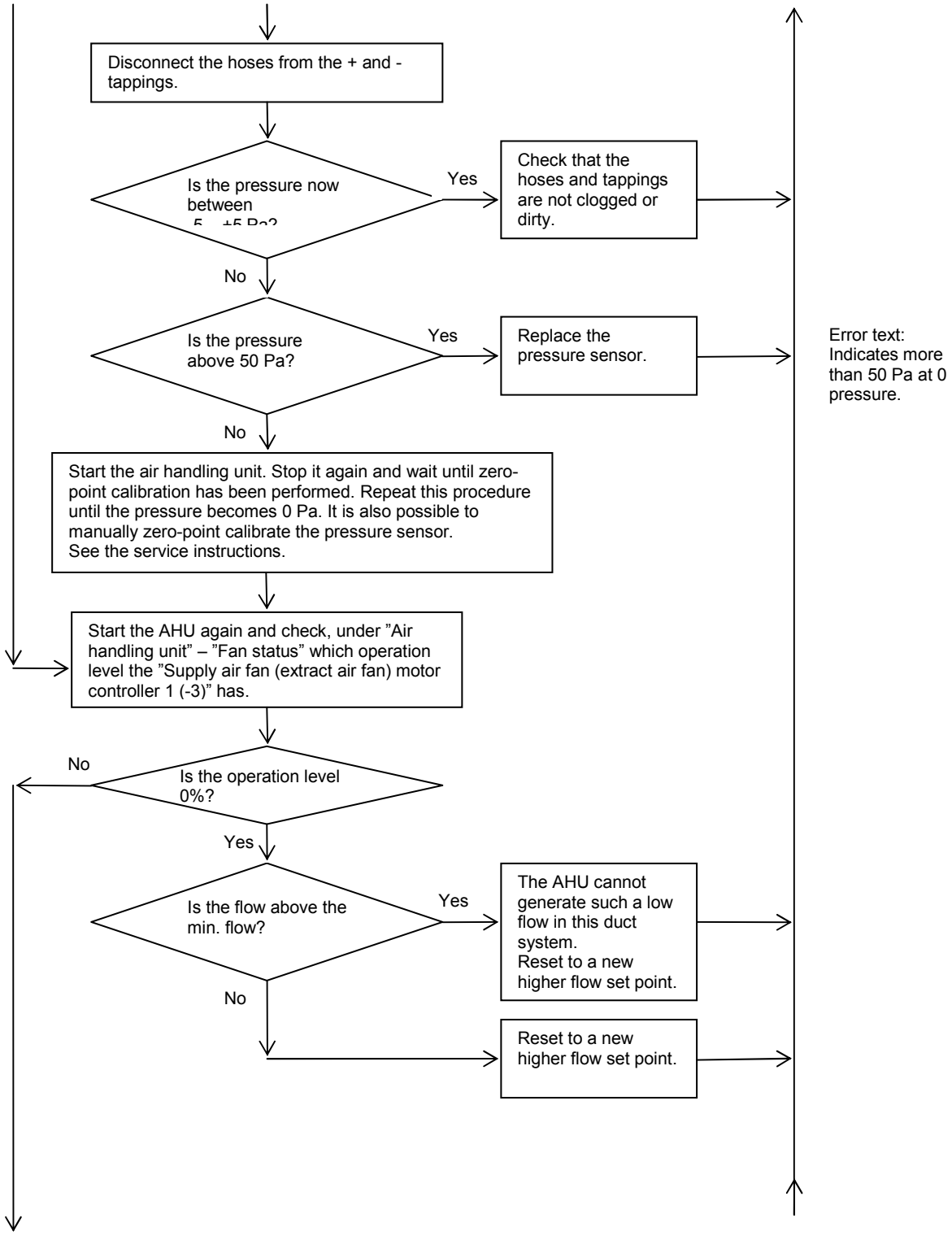

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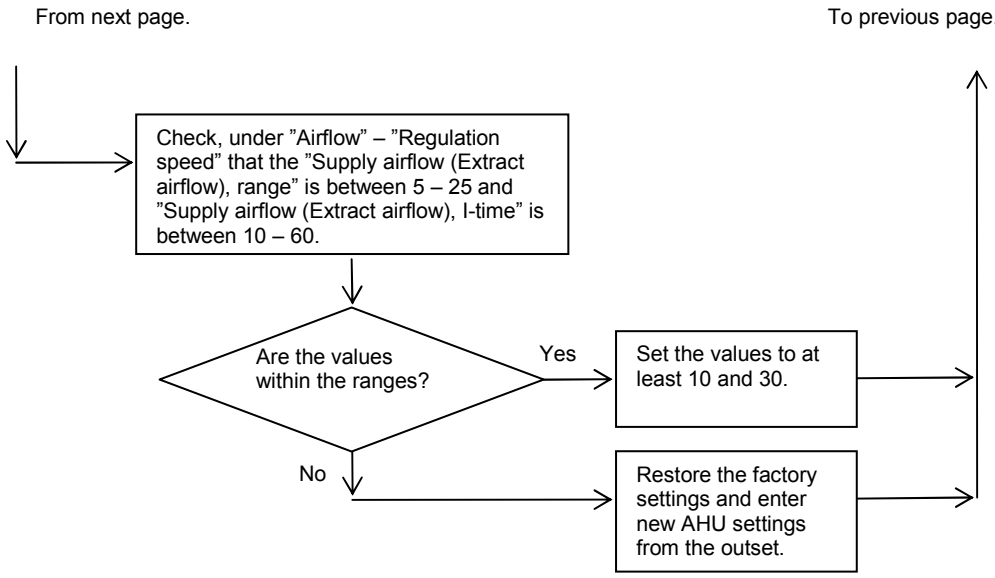


2.22.4. Alarm no. 30:6 "Flow measurement, extract air pressure sensor no. 1/2, communication error"

The alarm is always enabled for all GOLD units.
The alarm trips if the control unit does not achieve correct communication with the pressure sensor for the extract airflow.
The location of the fan inside the AHU determines the following address: Fan to the left = Address 1 and to the right = Address 2.

For troubleshooting see Alarm no. 17:2 above.

2.22.5. Alarm no. 30:7 "Flow measurement, extract airflow below set point”

The alarm is enabled for all the GOLD units when under "Airflow", "Regulation mode" for "Extract air" is selected to "Airflow".
The alarms trip when the flow has been more than 10% below the relevant flow set point for more than 20 minutes at a stretch.

For troubleshooting see Alarm no. 30:2 above.

2.22.6. Alarm no. 30:8 "Flow measurement, extract airflow above set point”

The alarm is enabled for all the GOLD units when under "Airflow", "Regulation mode" for "Extract air" is selected to "Airflow".
The alarms trip when the flow has been more than 10% above the relevant flow set point for more than 20 minutes at a stretch.

For troubleshooting see Alarm no. 30:3 above.

2.22.7. Alarm no 30:11 ”Flow measurement, carry over control, pressure sensor no. B communication error"

The alarm is always enabled for all GOLD units.
The alarm trips if the control unit does not achieve correct communication with the pressure sensor for ”Carry over control”.
Important! The pressure sensor must have pressure range: -1000Pa – +1000Pa. Part number 804937-01.

For troubleshooting see Alarm no. 30:1 above.

2.23. Alarm group 31: PRESSURE REGULATION

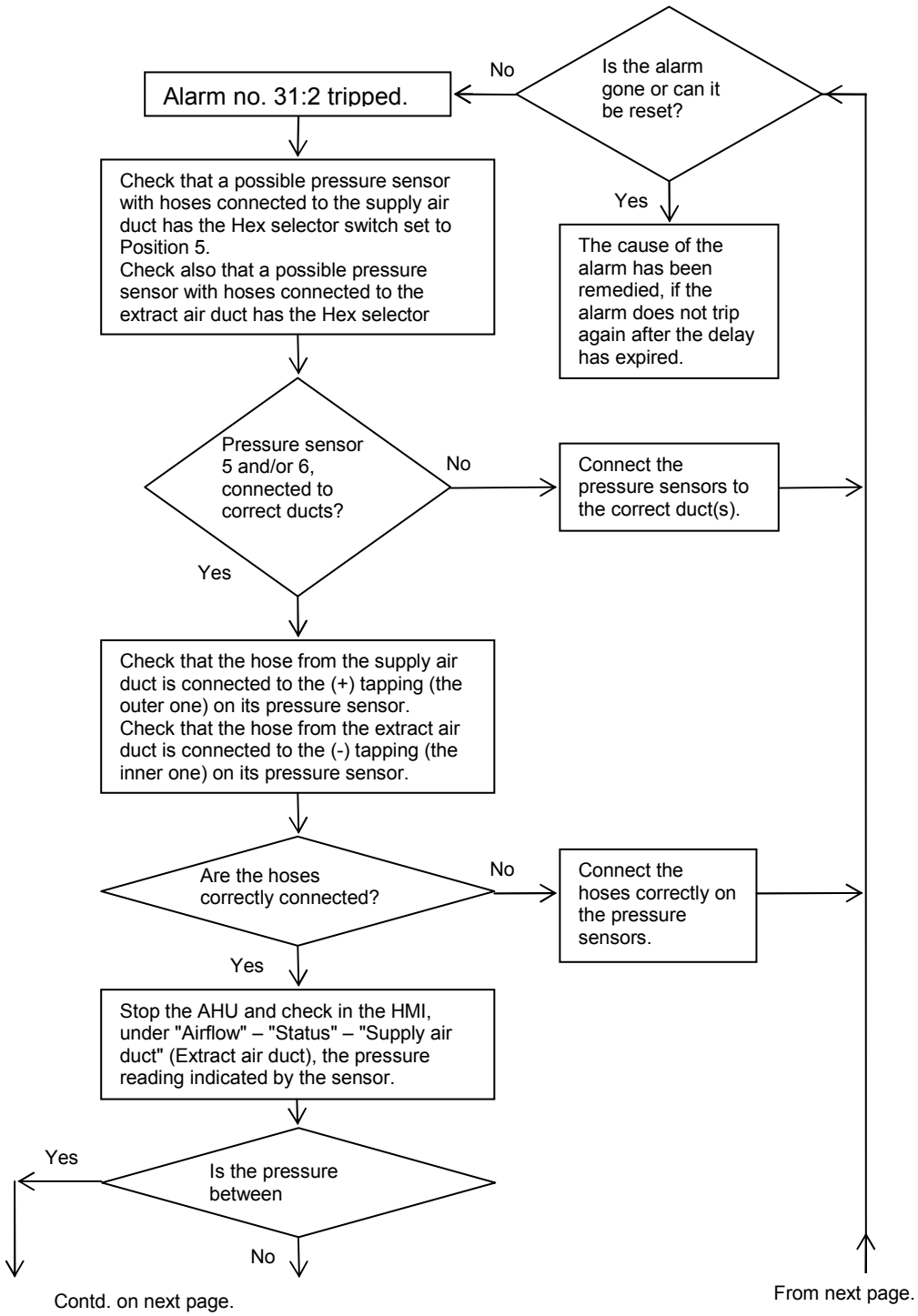
2.23.1. Alarm no. 31:1 "Pressure regulation, supply air pressure sensor no. 5 communication error".

The alarm is enabled for all the GOLD units when under "Airflow", "Regulation mode" for "Supply air" is selected to "Airflow".
The alarm trips if the control unit does not achieve correct communication with the pressure sensor for supply air duct pressure.

For troubleshooting see Alarm no. 28:1 above.

2.23.2. Alarm no. 31:2 "Pressure regulation, supply air pressure below set point"

The alarm is enabled for all the GOLD units when under "Airflow", "Regulation mode" for "Supply air" is selected to "Airflow".
The alarms trip when the duct pressure has been more than 10% below the relevant pressure set point for more than 20 minutes at a stretch.


Alarm no. 31:2 tripped.
Is the alarm gone or can it be reset?
No
Yes
The cause of the alarm has been remedied, if the alarm does not trip again after the delay has expired.
Check that a possible pressure sensor with hoses connected to the supply air duct has the Hex selector switch set to Position 5.
Check also that a possible pressure sensor with hoses connected to the extract air duct has the Hex selector
Pressure sensor 5 and/or 6, connected to correct ducts?
No
Connect the pressure sensors to the correct duct(s).
Yes
Check that the hose from the supply air duct is connected to the (+) tapping (the outer one) on its pressure sensor.
Check that the hose from the extract air duct is connected to the (-) tapping (the inner one) on its pressure sensor.
Are the hoses correctly connected?
No
Connect the hoses correctly on the pressure sensors.
Yes
Stop the AHU and check in the HMI, under "Airflow" – "Status" – "Supply air duct" (Extract air duct), the pressure reading indicated by the sensor.
Is the pressure between
Yes
No
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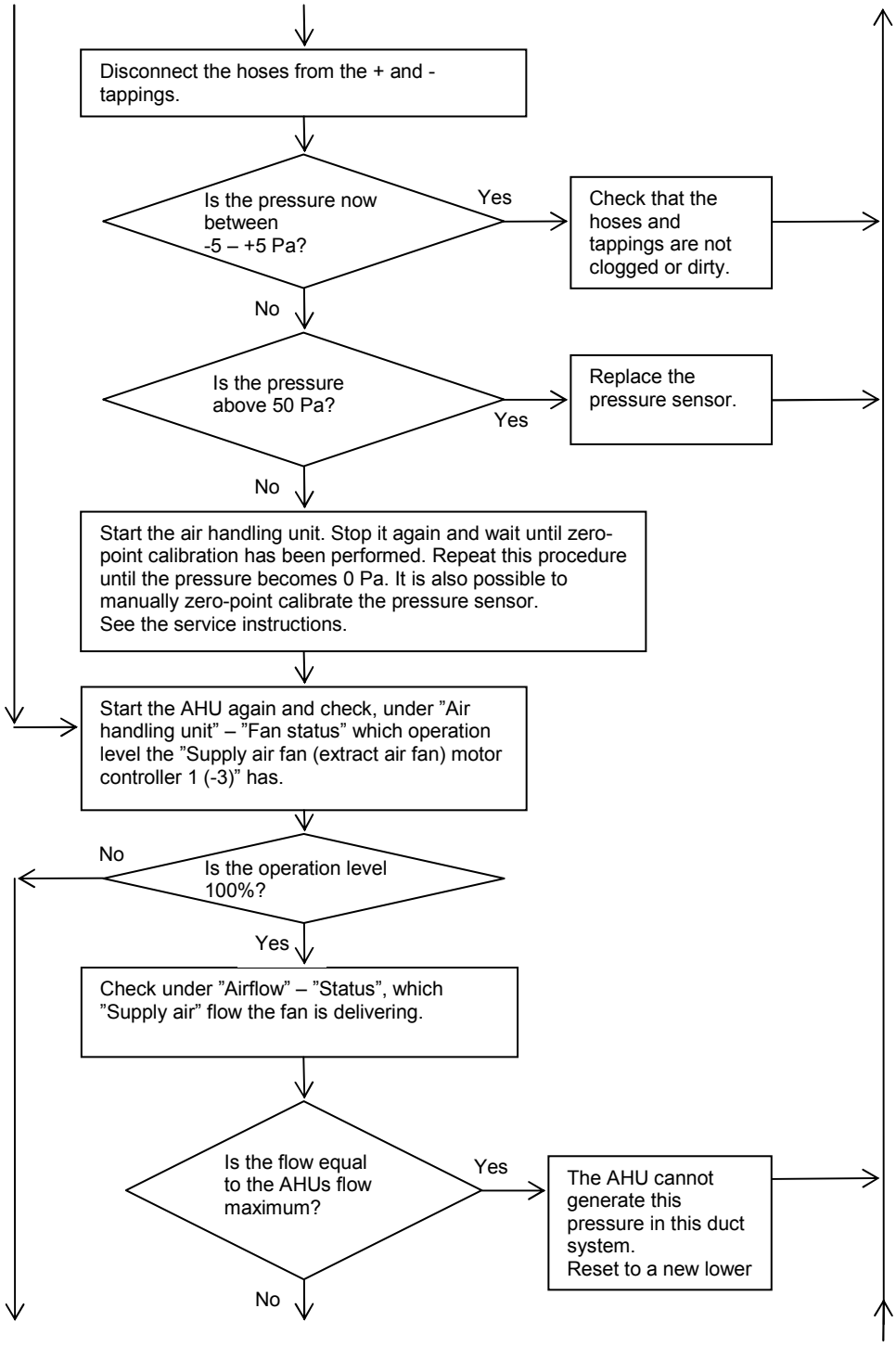

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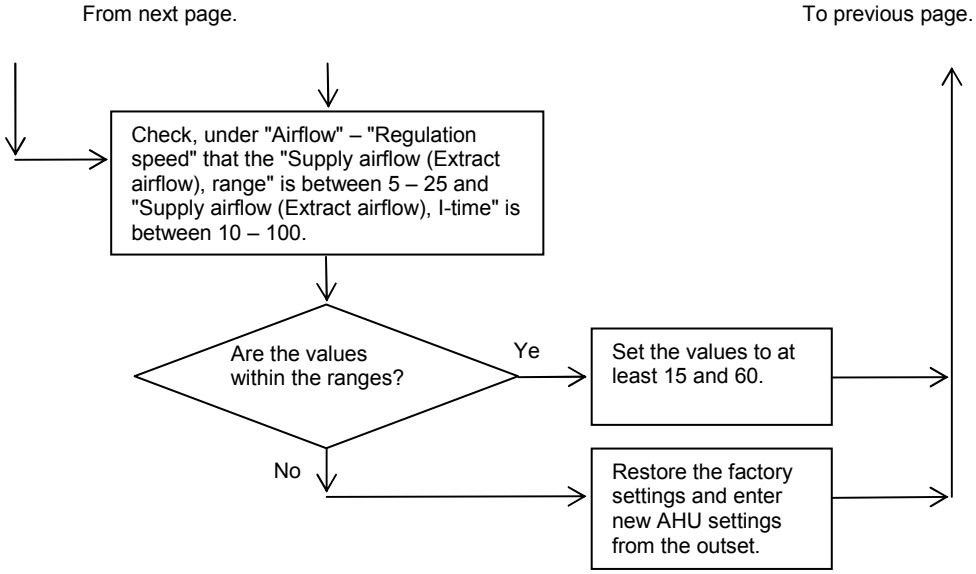
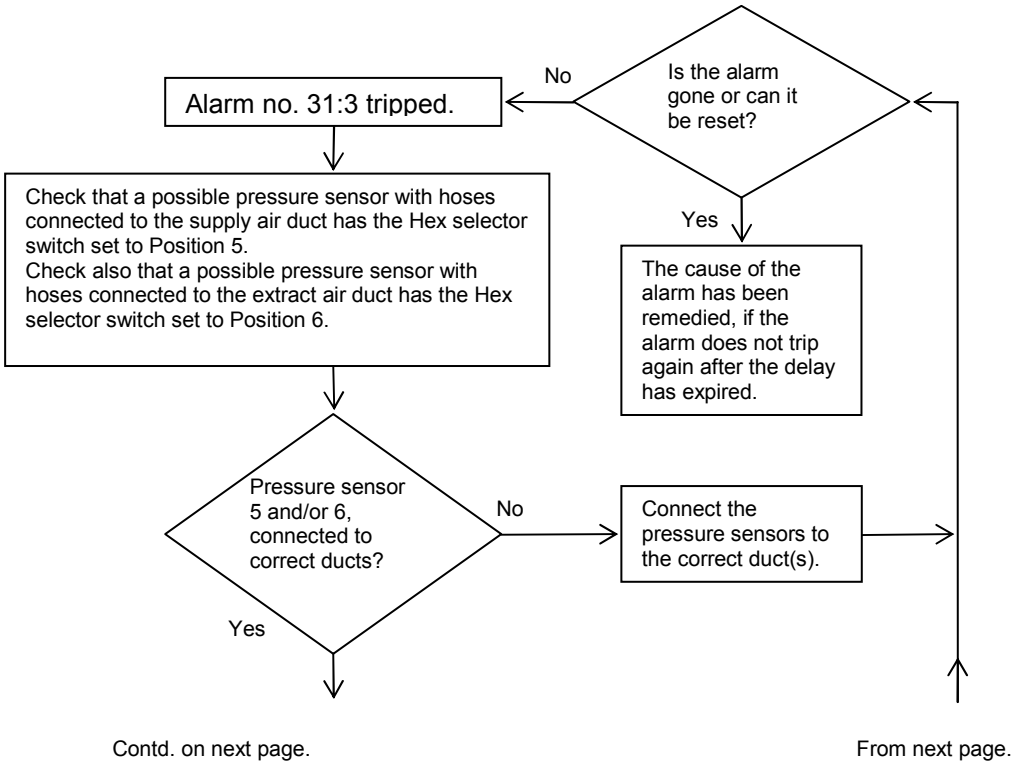


2.23.3. Alarm no. 31:3 "Pressure regulation, supply air pressure above set point"

The alarm is enabled for all the GOLD units when under "Airflow", "Regulation mode" for "Supply air" is selected to "Airflow".
The alarms trip when the duct pressure has been more than 10% above the relevant pressure set point for more than 20 minutes at a stretch.



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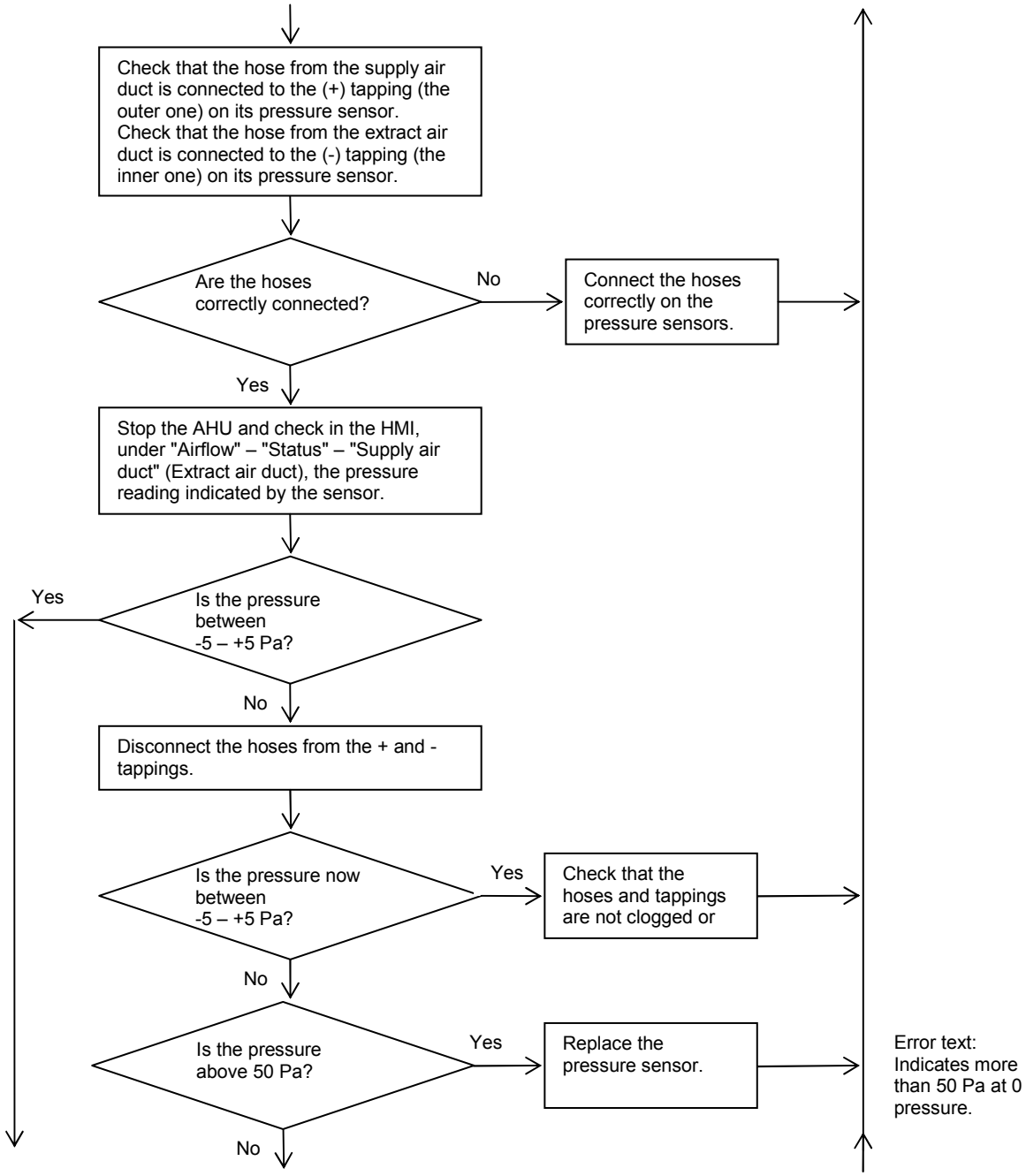

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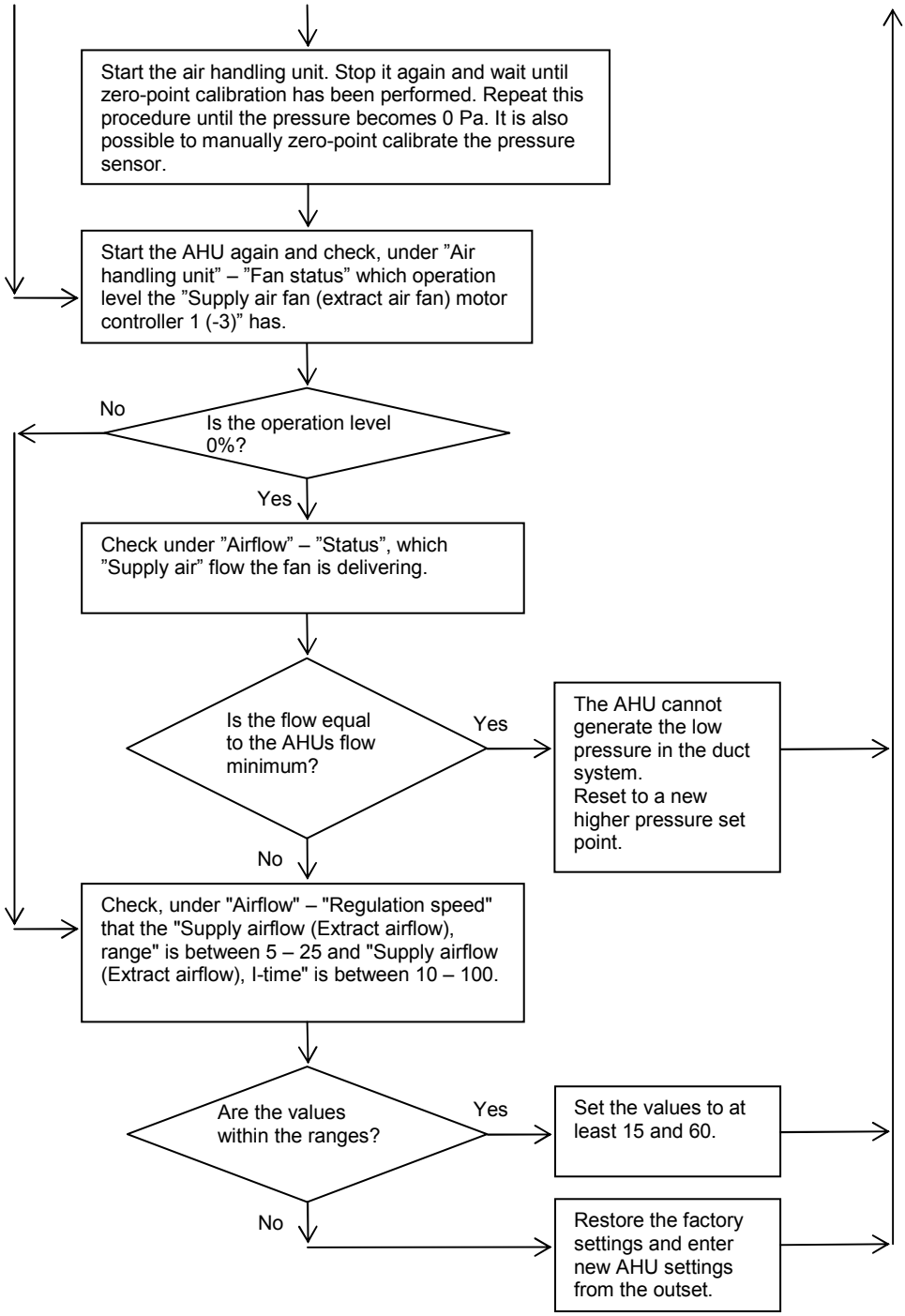


2.23.4. Alarm no. 31:6 "Pressure regulation, extract air pressure sensor no. 6 communication error".

The alarm is enabled for all the GOLD units when under "Airflow", "Regulation mode" for "Extract air" is selected to "Duct pressure".
The alarm trips if the control unit does not achieve correct communication with the pressure sensor for extract air duct pressure.

For troubleshooting see Alarm no. 28:1 above.

2.23.5. Alarm no. 31:7 "Pressure regulation, extract air pressure below set point"

The alarm is enabled for all the GOLD units when under "Airflow", "Regulation mode" for "Extract air" is selected to "Duct pressure".
The alarms trip when the duct pressure has been more than 10% below the relevant pressure set point for more than 20 minutes at a stretch.

For troubleshooting see Alarm no. 31:2 above.

2.23.6. Alarm no. 31:8 "Pressure regulation, extract air pressure above set point"

The alarm is enabled for all the GOLD units when under "Airflow", "Regulation mode" for "Extract air" is selected to "Duct pressure".
The alarms trip when the duct pressure has been more than 10% above the relevant pressure set point for more than 20 minutes at a stretch.

For troubleshooting see Alarm no. 31:3 above.

2.24. Alarm group 32: ReCO2

2.24.1. Alarm no. 32:1 "ReCO2, I/O- module no. 0 communication error"

The alarm for IQLogic+ module 0 (S) is enabled when the ReCO2 function is activated.
The alarm trips if the control unit does not achieve correct communication with the module.

For troubleshooting see Alarm no. 15:1 above.

2.24.2. Alarm no. 32:2 "ReCO2, supply air pressure sensor no. 0 communication error".

The alarm is enabled when the ReCO2 function is activated.
The alarm trips if the control unit does not achieve correct communication with the ReCO2 pressure sensor.

For troubleshooting see Alarm no. 17:2 above.

2.24.3. Alarm no. 32:3 "ReCO2, recirculation damper monitoring tripped"

The alarms are enabled when the ReCO2 function is activated.
The alarm trips when the feedback signal (input signal) from the recirculation damper motor does not agree with the control signal.
The alarm trips If the control signal is 0-2% and the feedback signal is > 8% and if the control signal is 97-100% and the feedback signal is < 92%.

For troubleshooting see Alarm no. 15:4 above.

2.24.4. Alarm no. 32:4 "ReCO2, outdoor air damper monitoring tripped"

The alarms are enabled when the ReCO2 function is activated.
The alarm trips when the feedback signal (input signal) from the outdoor air damper motor does not agree with the control signal.
The alarm trips If the control signal is 0-2% and the feedback signal is > 8% and if the control signal is 97-100% and the feedback signal is < 92%.

For troubleshooting see Alarm no. 15:4 above.

2.25. Alarm group 33: SERVICE

2.25.1. Alarm no. 33:1 "Service period over alarm limit"

The alarm is always enabled.
The alarm trips when the AHU has been operating longer than the preset "Service period".

Under ”Alarm priority” – ”Service period” set the required number of months until the next service visit.
Set the time as months. Remaining time to alarm, counts down to 0 months.
When the counter reaches 0 months, the alarm trips.

When resetting the alarm with "Reset", the alarm is delayed for 7 days before it returns.

To reset the alarm to the required time for a new service alarm, a new time (months) must be set under ”Alarm priority” – ”Service period”.

2.25.2. Alarm no. 33:15 ”Lock function tripped”

The alarm is enabled when the special function that blocks the AHUs operation has become activated.
The alarm trips when the preset time (date and time) has occurred.

To reset the alarm, you have to enter the code that you entered when you activated the lock function.
There is no "Master code".

2.26. Alarm group 34: EXTERNAL CONTROLS

2.26.1. Alarm no. 34:1 "External control, I/O module no. 3 communication error"

The alarm is enabled for all the GOLD units when the "External operation, module 3" function is activated.
The alarm trips if the control unit does not achieve correct communication with IQLogic+ module 3.
The function can be activated in the HMI under "Inputs / Outputs" – "External operation, I/O module 3".

For troubleshooting see Alarm no. 3:1 above.

2.26.2. Alarm no. 34:2 "External control, I/O module no. 6 communication error"

The alarm is enabled for all the GOLD units when the "External operation, module 6" function is activated.
The alarm trips if the control unit does not achieve correct communication with IQLogic+ module 6.
The function can be activated in the HMI under "Inputs / Outputs" – "External operation, I/O module 6".

For troubleshooting see Alarm no. 3:1 above.

2.27. Alarm group 35: BOOSTER AIR TERMINALS

2.27.1. Alarm no. 35:1 "Booster air terminals, I/O module no. 8 communication error"

The alarm is enabled for all the GOLD units when the "Booster air terminals" function is activated.
The alarm trips if the control unit does not achieve correct communication with IQLogic+ module 8.
The function can be activated in the HMI under "Airflow" – "Booster air terminals".

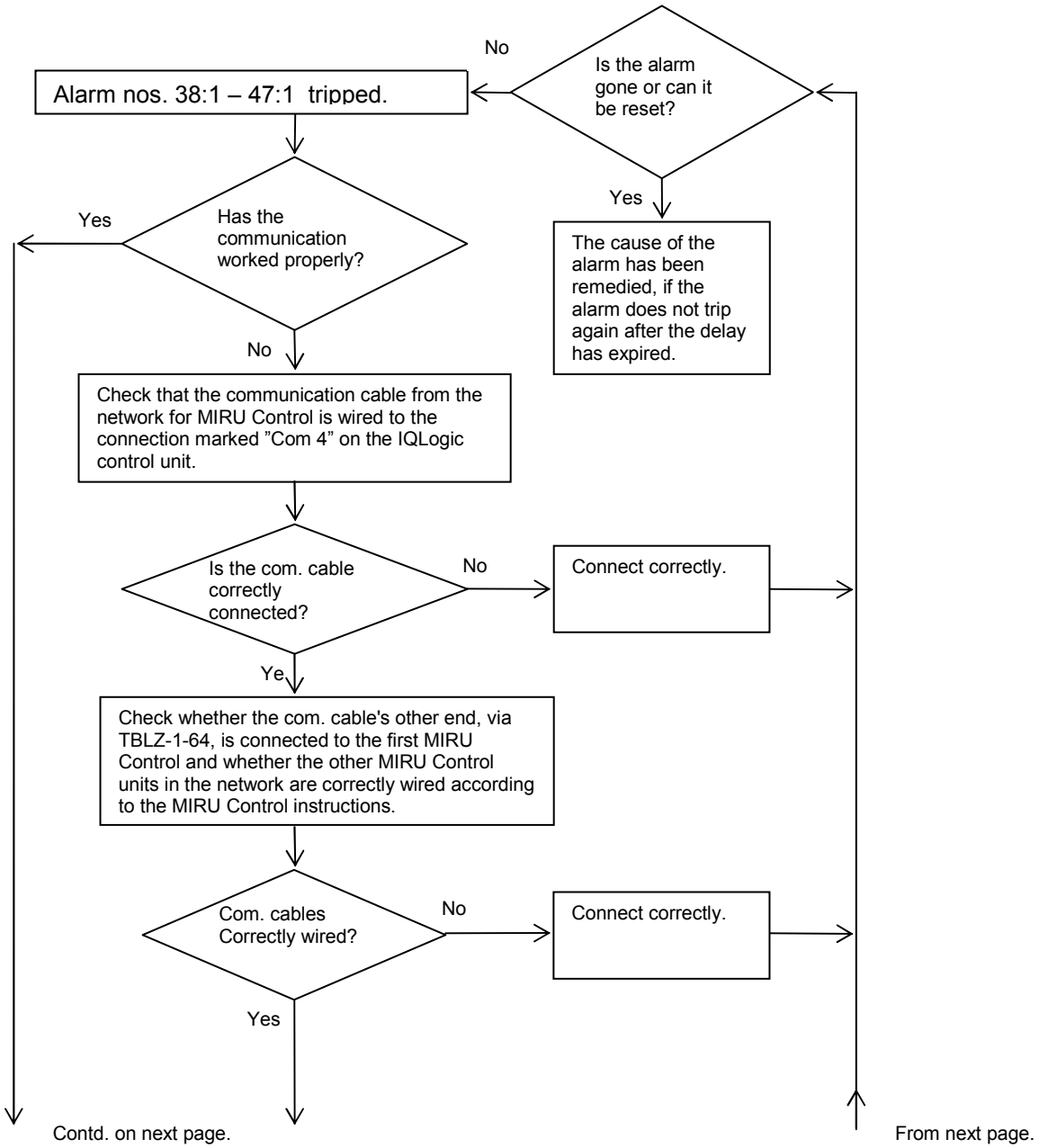
For troubleshooting see Alarm no. 3:1 above.

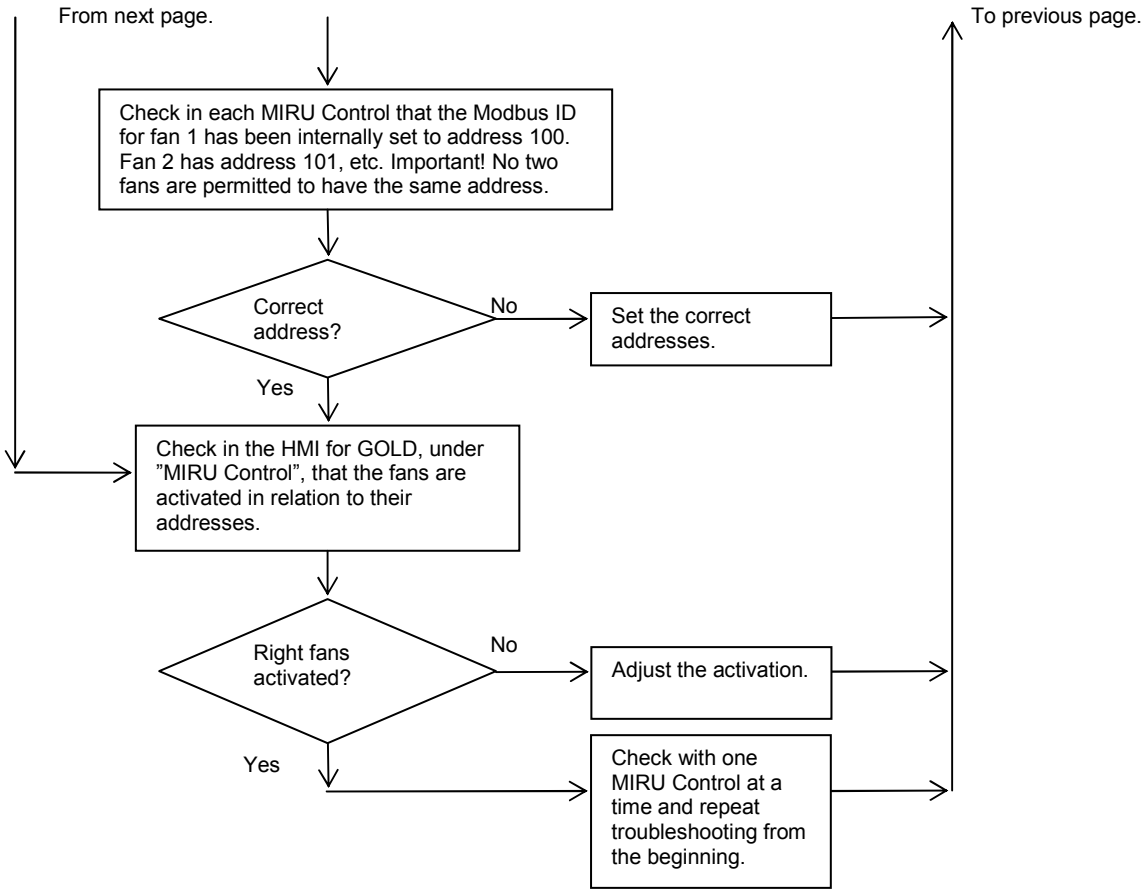
2.28. Alarm groups 38 – 47: MIRU CONTROL NOS. 1 – 10

MIRU Control number 1 = Alarm group 38.
MIRU Control number 2 = Alarm group 39.
MIRU Control number 3 = Alarm group 40.
. . . . . .
MIRU Control number 10 = Alarm group 47.

2.28.1. Alarm nos. 38.1 – 47:1 ”MIRU Control nos. 1 – 10, communication error”

The alarms are enabled when the "MIRU Control" function is activated for corresponding MIRU Control 1 – 10. The alarm trips when the control unit does not achieve correct communication with the activated MIRU Control unit(s).

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Check in each MIRU Control that the Modbus ID for fan 1 has been internally set to address 100. Fan 2 has address 101, etc. Important! No two fans are permitted to have the same address.
Correct address?
No
Set the correct addresses.
Yes
Check in the HMI for GOLD, under ”MIRU Control”, that the fans are activated in relation to their addresses.
Right fans activated?
No
Adjust the activation.
Yes
Check with one MIRU Control at a time and repeat troubleshooting from the beginning.

2.28.2. Alarm nos. 38.2 – 47:2 "MIRU Control nos. 1 – 10, fan motor controller tripped"

The alarms are enabled when the "MIRU Control" function is activated for corresponding MIRU Control, 1 – 10.
The alarm trips when the MIRUVENT fan transmits a common fault alarm to its MIRU Control.

Check in the display on the relevant MIRU Control and reset the alarm locally.
Troubleshoot in the MIRUVENT fan.

2.28.3. Alarm nos. 38.3 – 47:3 "MIRU Control nos. 1 – 10, motor controller communication error"

The alarms are enabled when the "MIRU Control" function is activated for corresponding MIRU Control, 1 – 10.
The alarm trips when the corresponding MIRU Control does not obtain correct communication with its MIRUVENT fan.

Check in the display on the relevant MIRU Control and reset the alarm locally.
Troubleshoot in the MIRU Control and check the MIRUVENT fan and the communication between them.

2.28.4. Alarm nos. 38.4 – 47:4 "MIRU Control nos. 1 – 10, flow pressure sensor no. 0 com. error"

The alarms are enabled when the "MIRU Control" function is activated for corresponding MIRU Control, 1 – 10.
The alarm trips when the corresponding MIRU Control does not obtain correct communication with its pressure sensor for flow measurement in the MIRUVENT fan.

Check in the display on the relevant MIRU Control whether the settings are correct.
Is there a pressure sensor with Hex address 0 and should flow measurement be activated?

Troubleshoot in the MIRU Control and check the communication to the pressure sensor.
Should be connected to connection X10 or X11 in the MIRU Control.

2.28.5. Alarm nos. 38.5 – 47:5 "MIRU Control nos. 1 – 10, duct pressure sensor no. 1 com. error"

The alarms are enabled when the "MIRU Control" function is activated for corresponding MIRU Control, 1 – 10.
The alarm trips when the corresponding MIRU Control does not obtain correct communication with its pressure sensor for duct pressure in the MIRUVENT fan.

Check in the display on the relevant MIRU Control whether the settings are correct.
Is there a pressure sensor with Hex address 1 and should duct pressure regulation be activated?

Troubleshoot in the MIRU Control and check the communication to the pressure sensor.
Should be connected to connection X10 or X11 in the MIRU Control.

2.28.6. Alarm nos. 38.6 – 47:6 "MIRU Control nos. 1 – 10, temperature sensor defective"

The alarms are enabled when the "MIRU Control" function is activated for corresponding MIRU Control, 1 – 10.
The alarm trips when the corresponding MIRU Control does not obtain correct communication with its temperature sensor for outdoor temperature compensation.

Check in the display on the relevant MIRU Control whether the settings are correct.
Is a temperature sensor connected to Terminal 20 (-) and Terminal 21 (s) and should outdoor compensation be activated?

Troubleshoot in the MIRU Control and check the how the pressure sensor is wired.

2.28.7. Alarm nos. 38.7 – 47:7 "MIRU Control nos. 1 – 10, flow/pressure deviates from set point"

The alarms are enabled when the "MIRU Control" function is activated for corresponding MIRU Control, 1 – 10. The alarm trips when the corresponding MIRU Control has a flow/duct pressure that continuously deviates from its set point.

Check in the display on the relevant MIRU Control whether the settings are correct.
Check that the hoses to the pressure sensors are correctly connected.

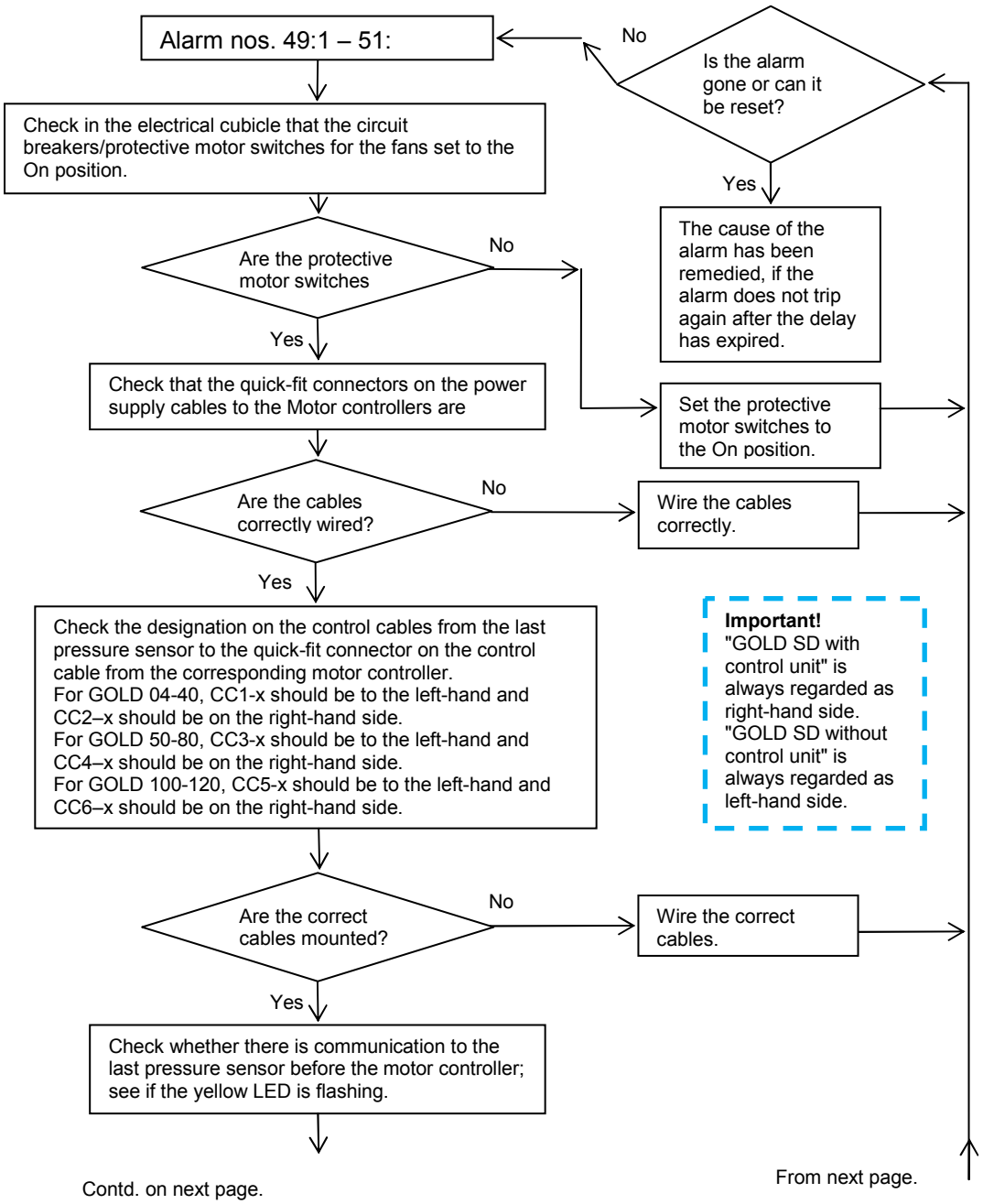
Troubleshoot in the MIRU Control and check the current flow or duct pressure.

2.29. Alarm groups 49 – 51: SUPPLY AIR FAN nos. 1A, 2A and 3A.

The fans are numbered 1,2 and 3 starting from inspection door.

2.29.1. Alarm nos. 49.1 – 51:1 "Supply air fan nos. 1A – 3A, communication error"

The size of air handling unit determines which alarms are enabled. GOLD 04-40 have one supply air fan (1A). GOLD 50-80 GOLD have two supply air fans (1A – 2A). GOLD 100-120 with up to 6.5 kW motors have 3 supply air fans (1A – 3A).
The alarms trip when the IQLogic control unit does not have communication with the corresponding motor controller.



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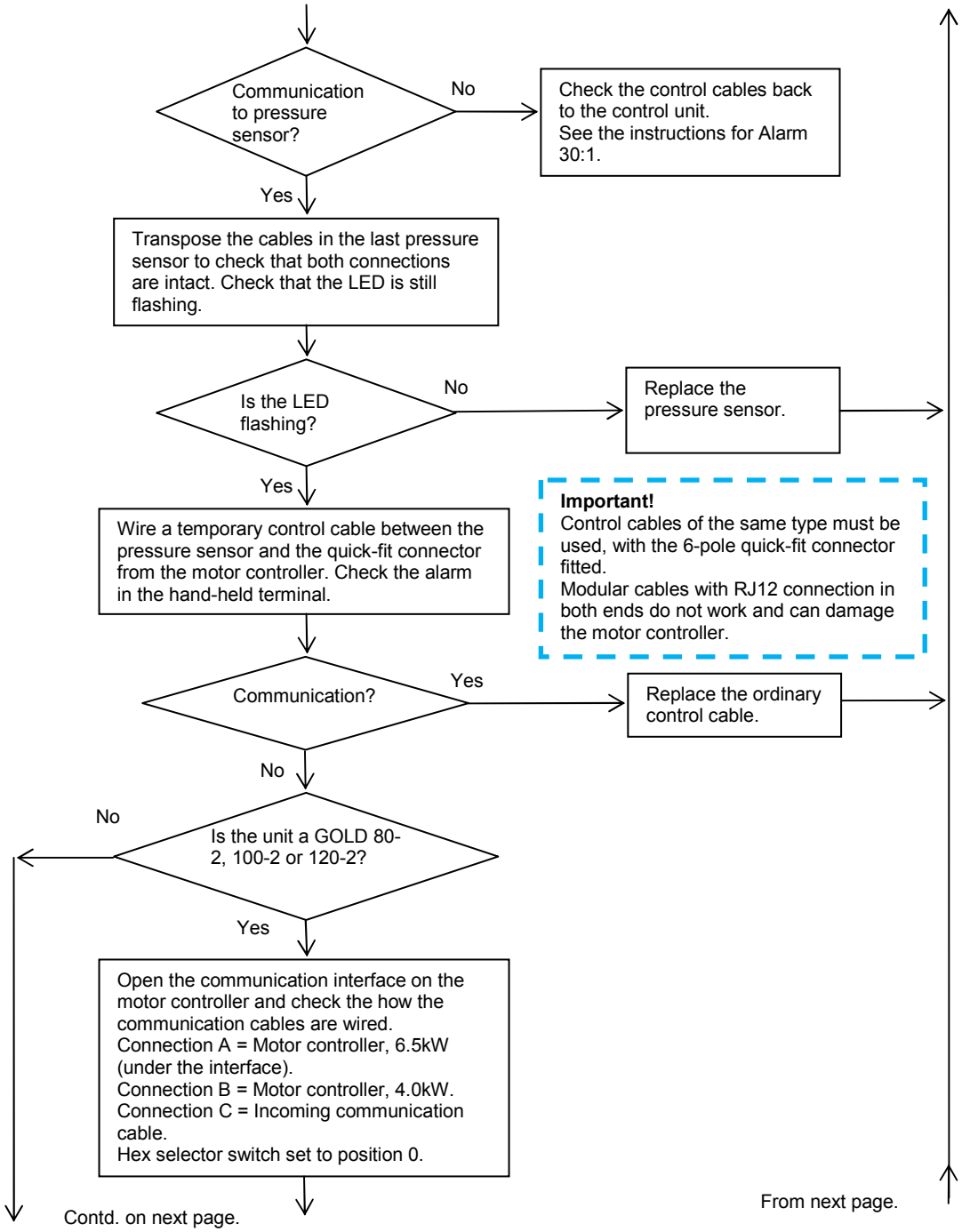

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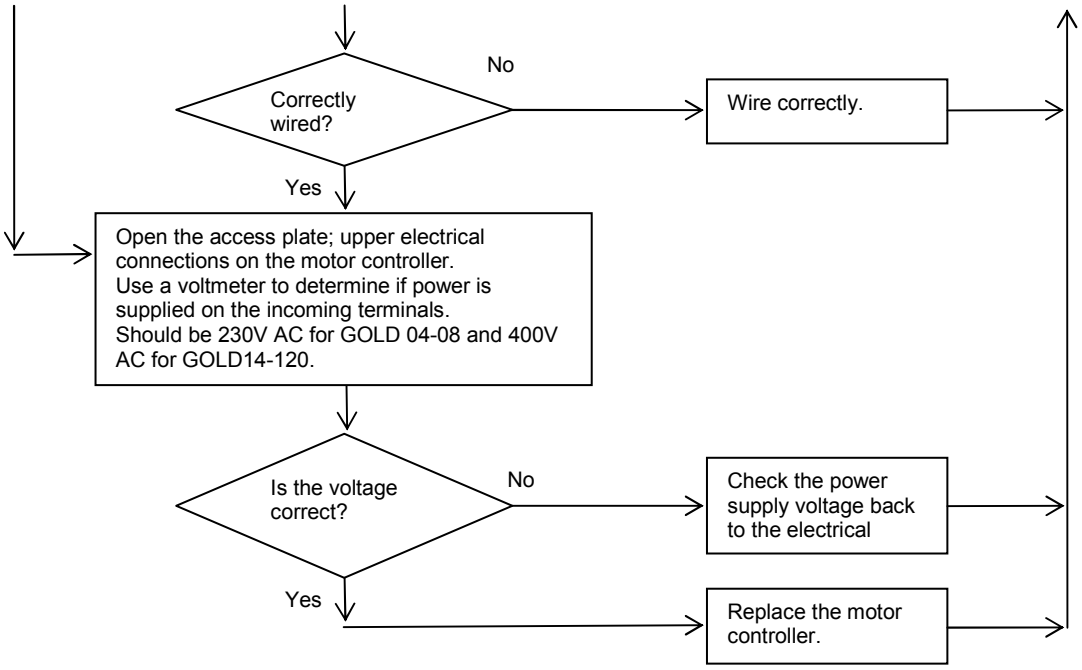
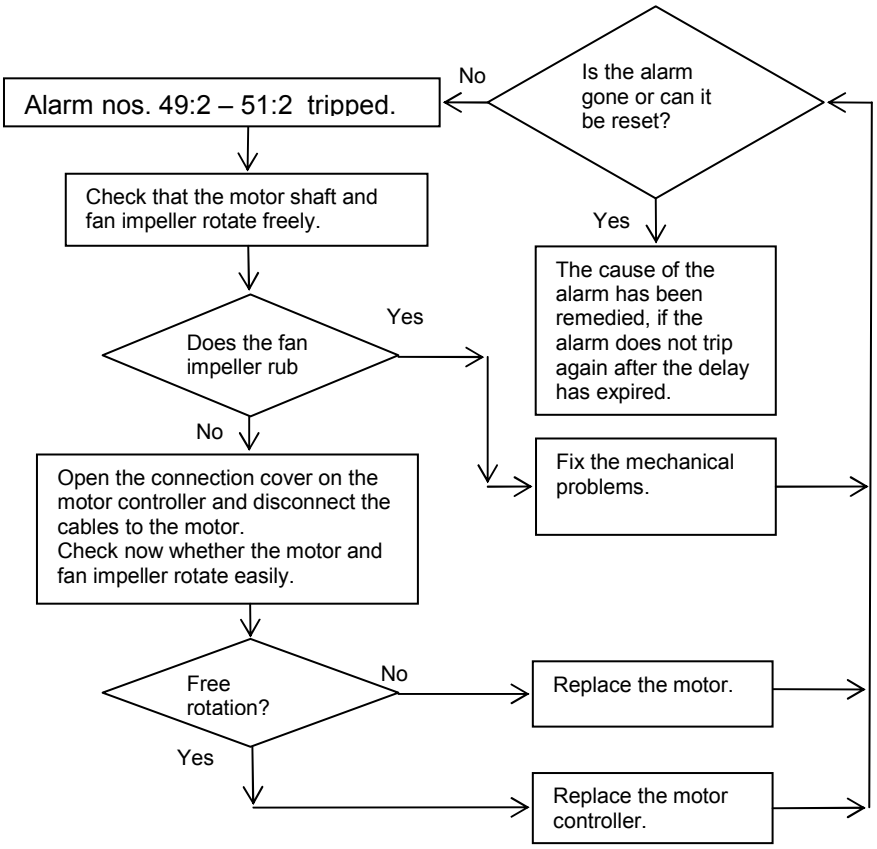


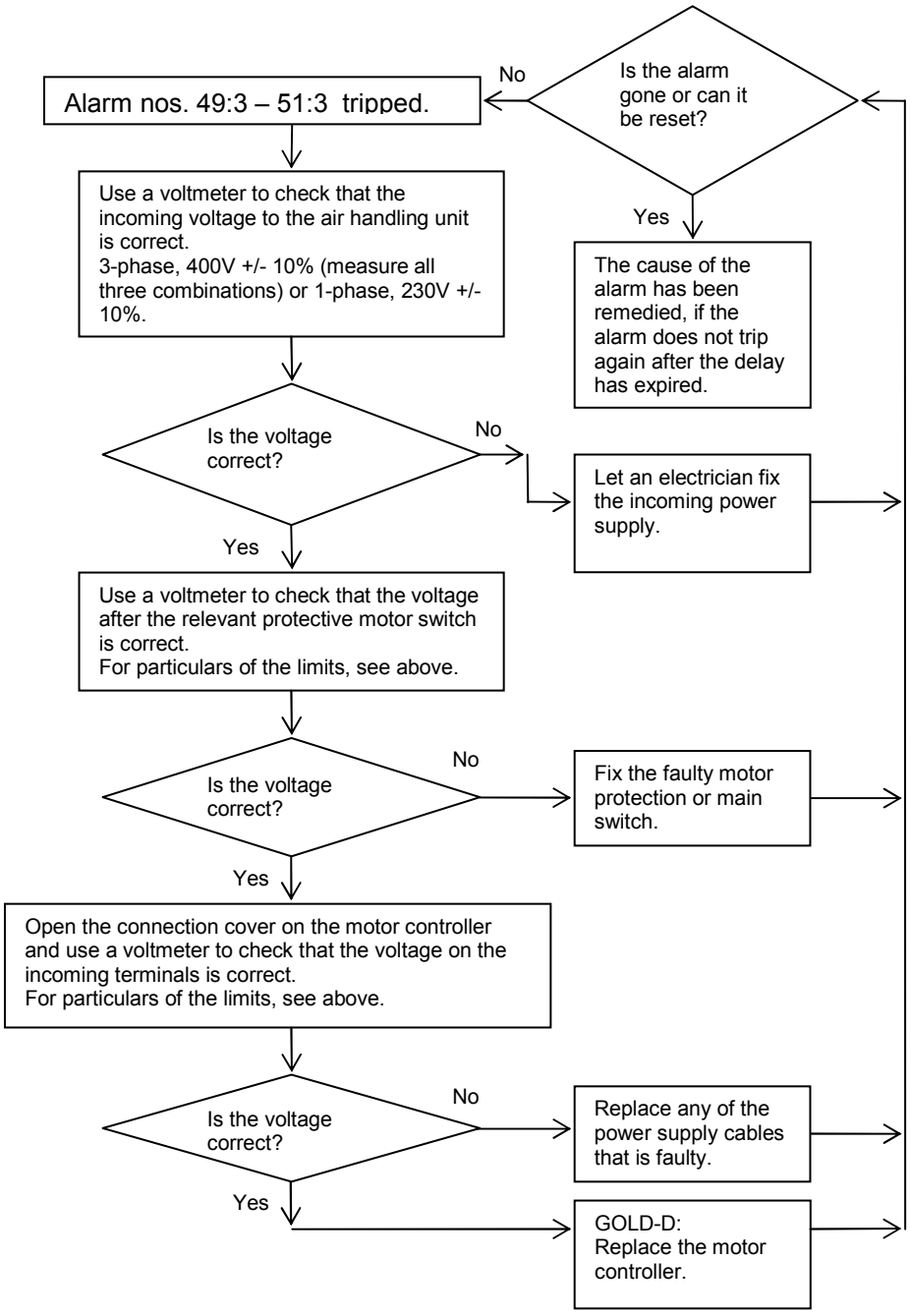
2.29.2. Alarm nos. 49.2 – 51:2 "Supply air fan nos. 1A – 3A over current"

The size of air handling unit determines which alarms are enabled. GOLD 04-40 have one supply air fan (1A). GOLD 50-80 GOLD have two supply air fans (1A – 2A). GOLD 100-120 with up to 6.5 kW motors have 3 supply air fans (1A – 3A).
The alarms trip when the internal monitoring function in the EC motor controller detects current supplied to the motor above the alarm limit.



2.29.3. Alarm nos. 49.3 – 51:3 "Supply air fan nos. 1A – 3A under voltage"

The size of air handling unit determines which alarms are enabled. GOLD 04-40 have one supply air fan (1A). GOLD 50-80 GOLD have two supply air fans (1A – 2A). GOLD 100-120 with up to 6.5 kW motors have 3 supply air fans (1A – 3A).
The alarms trip when the internal monitoring function in the EC motor controller detects voltage below the alarm limit.



2.29.4. Alarm nos. 49.4 – 51:4 "Supply air fan nos. 1A – 3A over voltage"

The size of air handling unit determines which alarms are enabled. GOLD 04-40 have one supply air fan (1A). GOLD 50-80 GOLD have two supply air fans (1A – 2A). GOLD 100-120 with up to 6.5 kW motors have 3 supply air fans (1A – 3A).
The alarms trip when the internal monitoring function in the EC motor controller detects internal voltage above the alarm limit.

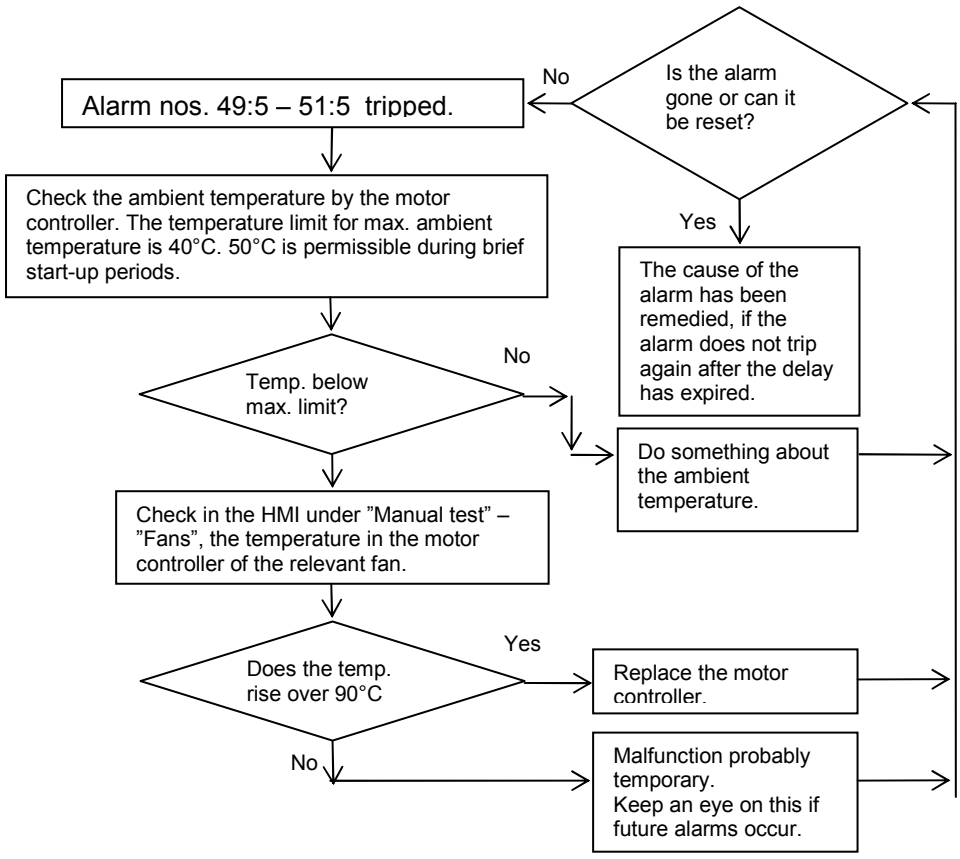
The alarm can occur when incoming power supply voltage exceeds the AHU's specified limit values. 3-phase, 400V +10% or 1-phase, 230 +10%.

The alarm can also occur when the motor that rotates too fast (generator effect) because some other fan is discharging air across the AHU's fan.

Use a voltmeter to check the incoming voltage.
Also check whether the fans rotate due to external airflow when the AHU is stopped.

2.29.5. Alarm nos. 49.5 – 51:5 "Supply air fan nos. 1A – 3A over temperature"

The size of air handling unit determines which alarms are enabled. GOLD 04-40 have one supply air fan (1A). GOLD 50-80 GOLD have two supply air fans (1A – 2A). GOLD 100-120 with up to 6.5 kW motors have 3 supply air fans (1A – 3A).
The alarms trip when the internal monitoring function in the EC motor controller detects an internal temperature above the alarm limit of 90°C.



2.29.6. Alarm nos. 49.6 – 51:6 "Supply air fan nos. 1A – 3A fan motor blocked"

The size of air handling unit determines which alarms are enabled. GOLD 04-40 have one supply air fan (1A). GOLD 50-80 GOLD have two supply air fans (1A – 2A). GOLD 100-120 with up to 6.5 kW motors have 3 supply air fans (1A – 3A).
The alarms trip when the internal monitoring function in the motor controller indicates that the motor is blocked or operates too sluggishly when it is to start up.

Rotate the fan impeller by hand to check that the fan is not mechanically blocked or that the motor bearings are not beginning to become worn.

2.29.7. Alarm nos. 49.7 – 51:7 "Supply air fan nos. 1A – 3A ripple error"

The size of air handling unit determines which alarms are enabled. GOLD 04-40 have one supply air fan (1A). GOLD 50-80 GOLD have two supply air fans (1A – 2A). GOLD 100-120 with up to 6.5 kW motors have 3 supply air fans (1A – 3A).
The alarms trip when the internal monitoring function in the motor controller indicates that harmful voltage peaks have exceeded the alarm limit.

Check the cable connections and, if appropriate instruments are available, also the appearance of the incoming alternating voltage in the power supply.

2.29.8. Alarm nos. 49.8 – 51:8 "Supply air fan nos. 1A – 3A phase error"

The size of air handling unit determines which alarms are enabled. GOLD 04-40 have one supply air fan (1A). GOLD 50-80 GOLD have two supply air fans (1A – 2A). GOLD 100-120 with up to 6.5 kW motors have 3 supply air fans (1A – 3A).
The alarms trip when the internal monitoring function in the motor controller indicates fluctuation voltage on the incoming phases.

Use a voltmeter to check that the voltage between the incoming phases does not differ by more than 5%.
If possible, take measurements while the fans are operating.

2.29.9. Alarm nos. 49.9 – 51:9 "Supply air fan nos. 1A – 3A EEpro error"

The size of air handling unit determines which alarms are enabled. GOLD 04-40 have one supply air fan (1A). GOLD 50-80 GOLD have two supply air fans (1A – 2A). GOLD 100-120 with up to 6.5 kW motors have 3 supply air fans (1A – 3A).
The alarms trip when the internal monitoring function in the motor controller indicates malfunction in the internal EEprom.

Replace the motor controller.

2.29.10. Alarm nos. 49.10 – 51:10 "Supply air fan nos. 1A – 3A current limitation"

The size of air handling unit determines which alarms are enabled. GOLD 04-40 have one supply air fan (1A). GOLD 50-80 GOLD have two supply air fans (1A – 2A). GOLD 100-120 with up to 6.5 kW motors have 3 supply air fans (1A – 3A).
The alarms trip when the internal monitoring function in the motor controller indicates that the current supplied to the fan motor is so high that the internal speed reduction function continuously has to operate to keep the motor current below the max. permissible current limit.

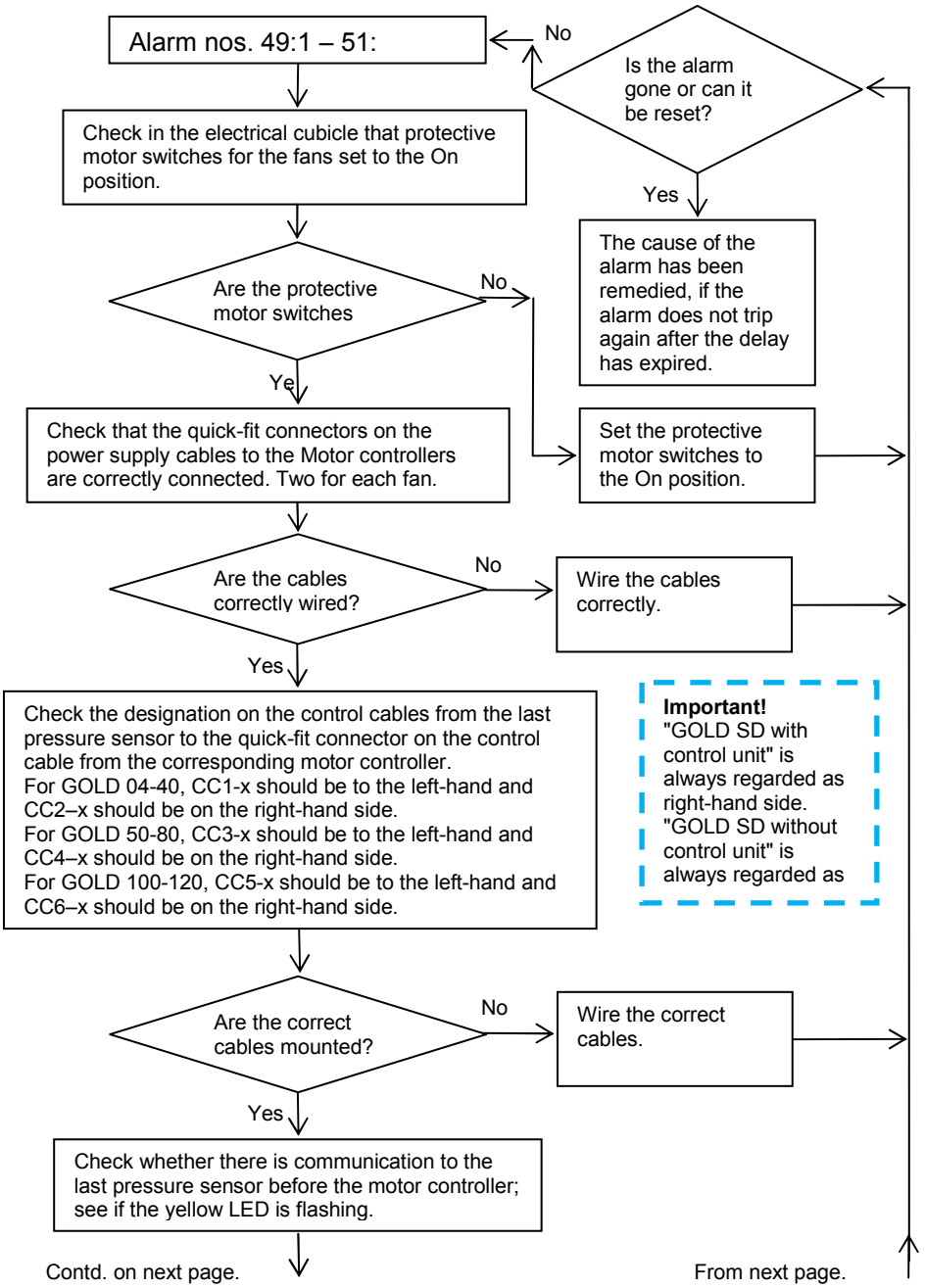
Try to rectify this by reducing the AHU's flow/pressure set point.

2.30. Alarm groups 52 – 54: SUPPLY AIR FAN nos. 1B, 2B and 3B.

The fans are numbered 1,2 and 3 starting from inspection door.
Fan designation B denotes motor controller 2 on the 10.5 kW motors.
Applies to the GOLD 80-2, GOLD 100-2 and GOLD 120-2.

2.30.1. Alarm nos. 52.1 – 54:1 "Supply air fan nos. 1B – 3B, communication error"

The alarms are enabled for GOLD 80-2, GOLD 100-2 and GOLD 120-2.
For 10.5kW fans with two motor controllers, 1B-3B denote motor controller 2 (4.0kW), for fans 1 – 3 counted from the inspection door.
The alarms trip when the IQLogic control unit does not have communication with the corresponding motor controller.


Alarm nos. 49:1 – 51:
Check in the electrical cubicle that protective motor switches for the fans set to the On position.
Are the protective motor switches
No
Ye
Check that the quick-fit connectors on the power supply cables to the Motor controllers are correctly connected. Two for each fan.
Are the cables correctly wired?
No
Yes
Wire the cables correctly.
Check the designation on the control cables from the last pressure sensor to the quick-fit connector on the control cable from the corresponding motor controller.
For GOLD 04-40, CC1-x should be to the left-hand and CC2–x should be on the right-hand side.
For GOLD 50-80, CC3-x should be to the left-hand and CC4–x should be on the right-hand side.
For GOLD 100-120, CC5-x should be to the left-hand and CC6–x should be on the right-hand side.
Important!
"GOLD SD with control unit" is always regarded as right-hand side.
"GOLD SD without control unit" is always regarded as
Are the correct cables mounted?
No
Wire the correct cables.
Yes
Check whether there is communication to the last pressure sensor before the motor controller; see if the yellow LED is flashing.
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No
Is the alarm gone or can it be reset?
Yes
The cause of the alarm has been remedied, if the alarm does not trip again after the delay has expired.
Set the protective motor switches to the On position.
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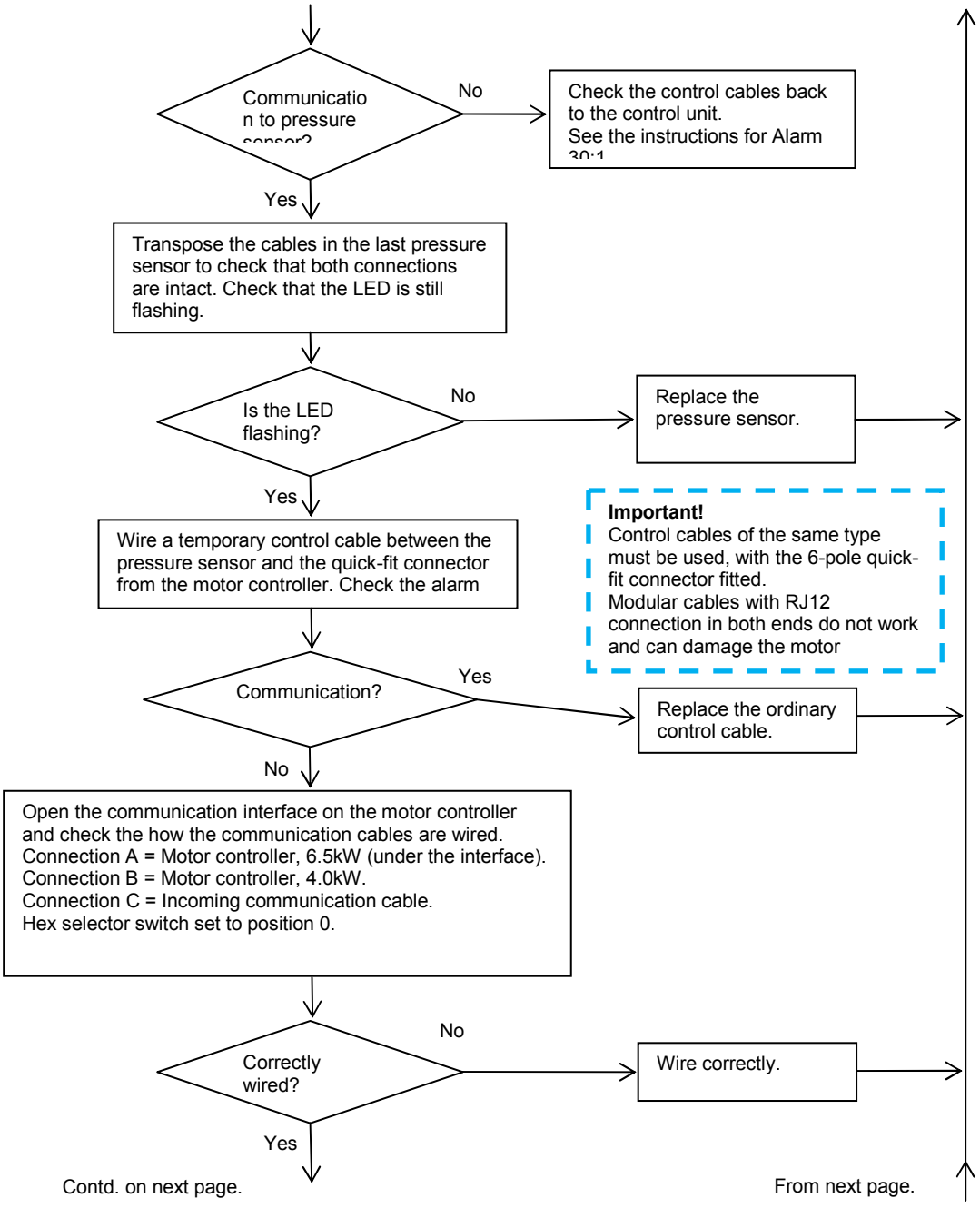

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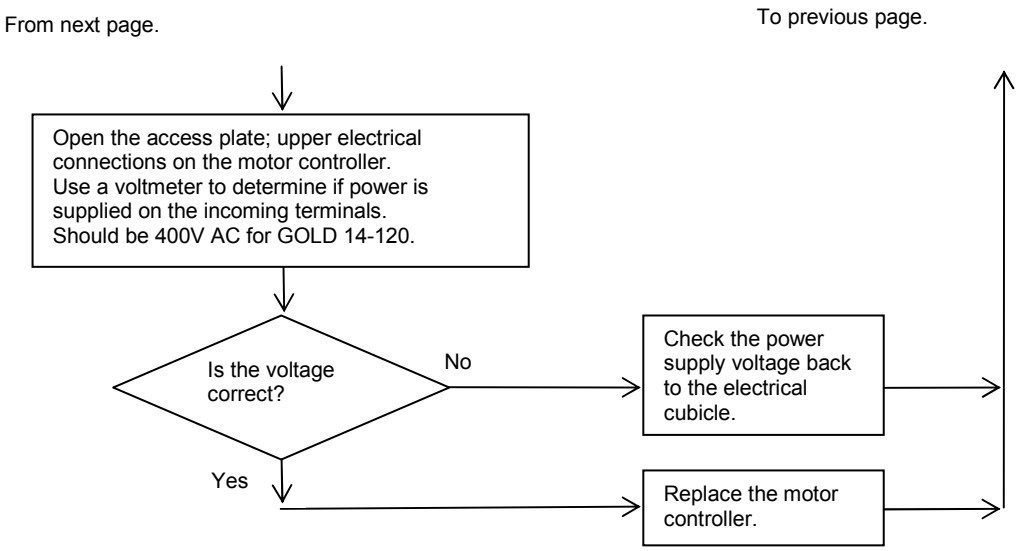

2.30.2. Alarm nos. 52.2 – 54:2 "Supply air fan nos. 1B – 3B over current"

The alarms are enabled for GOLD 80-2, GOLD 100-2 and GOLD 120-2.
For 10.5kW fans with two motor controllers, 1B-3B denote motor controller 2 (4.0kW), for fans 1 – 3 counted from the inspection door.
The alarms trip when the internal monitoring function in the EC motor controller detects current supplied to the motor above the alarm limit.

For troubleshooting see Alarm no. 49:2 above.

2.30.3. Alarm nos. 52.3 – 54:3 "Supply air fan nos. 1B – 3B under voltage"

The alarms are enabled for GOLD 80-2, GOLD 100-2 and GOLD 120-2.
For 10.5kW fans with two motor controllers, 1B-3B denote motor controller 2 (4.0kW), for fans 1 – 3 counted from the inspection door.
The alarms trip when the internal monitoring function in the EC motor controller detects voltage below the alarm limit.

For troubleshooting see Alarm no. 49:3 above.

2.30.4. Alarm nos. 52.4 – 54:4 "Supply air fan nos. 1B – 3B over voltage"

The alarms are enabled for GOLD 80-2, GOLD 100-2 and GOLD 120-2.
For 10.5kW fans with two motor controllers, 1B-3B denote motor controller 2 (4.0kW), for fans 1 – 3 counted from the inspection door.
The alarms trip when the internal monitoring function in the EC motor controller detects internal voltage above the alarm limit.

The alarm can occur when incoming power supply voltage exceeds the AHU's specified limit values. 3-phase, 400V +10% or 1-phase, 230 +10%.

The alarm can also occur when the motor that rotates too fast (generator effect) because some other fan is discharging air across the AHU's fan.

Use a voltmeter to check the incoming voltage.
Also check whether the fans rotate due to external airflow when the AHU is stopped.

2.30.5. Alarm nos. 52.5 – 54:5 "Supply air fan nos. 1B – 3B over temperature"

The alarms are enabled for GOLD 80-2, GOLD 100-2 and GOLD 120-2.
For 10.5kW fans with two motor controllers, 1B-3B denote motor controller 2 (4.0kW), for fans 1 – 3 counted from the inspection door.
The alarms trip when the internal monitoring function in the EC motor controller detects an internal temperature above the alarm limit of 90°C.

For troubleshooting see Alarm no. 49:5 above.

2.30.6. Alarm nos. 52.6 – 54:6 "Supply air fan nos. 1B – 3B fan motor blocked"

The alarms are enabled for GOLD 80-2, GOLD 100-2 and GOLD 120-2.
For 10.5kW fans with two motor controllers, 1B-3B denote motor controller 2 (4.0kW), for fans 1 – 3 counted from the inspection door.
The alarms trip when the internal monitoring function in the motor controller indicates that the motor is blocked or operates too sluggishly when it is to start up.

Rotate the fan impeller by hand to check that the fan is not mechanically blocked or that the motor bearings are not beginning to become worn.

2.30.7. Alarm nos. 52.7 – 54:7 "Supply air fan nos. 1B – 3B ripple error"

The alarms are enabled for GOLD 80-2, GOLD 100-2 and GOLD 120-2.
For 10.5kW fans with two motor controllers, 1B-3B denote motor controller 2 (4.0kW), for fans 1 – 3 counted from the inspection door.
The alarms trip when the internal monitoring function in the motor controller indicates that harmful voltage peaks have exceeded the alarm limit.

Check the cable connections and, if appropriate instruments are available, also the appearance of the incoming alternating voltage in the power supply.

2.30.8. Alarm nos. 52.8 – 54:8 "Supply air fan nos. 1B – 3B phase error"

The alarms are enabled for GOLD 80-2, GOLD 100-2 and GOLD 120-2.
For 10.5kW fans with two motor controllers, 1B-3B denote motor controller 2 (4.0kW), for fans 1 – 3 counted from the inspection door.
The alarms trip when the internal monitoring function in the motor controller indicates fluctuation voltage on the incoming phases.

Use a voltmeter to check that the voltage between the incoming phases does not differ by more than 5%.
If possible, take measurements while the fans are operating.

2.30.9. Alarm nos. 52.9 – 54:9 "Supply air fan nos. 1B – 3B EEprom error"

The alarms are enabled for GOLD 80-2, GOLD 100-2 and GOLD 120-2.
For 10.5kW fans with two motor controllers, 1B-3B denote motor controller 2 (4.0kW), for fans 1 – 3 counted from the inspection door.
The alarms trip when the internal monitoring function in the motor controller indicates malfunction in the internal EEprom.

Replace the motor controller.

2.30.10. Alarm nos. 52.10 – 54:10 "Supply air fan nos. 1B – 3B current limitation"

The alarms are enabled for GOLD 80-2, GOLD 100-2 and GOLD 120-2.
For 10.5kW fans with two motor controllers, 1B-3B denote motor controller 2 (4.0kW), for fans 1 – 3 counted from the inspection door.
The alarms trip when the internal monitoring function in the motor controller indicates that the current supplied to the fan motor is so high that the internal speed reduction function continuously has to operate to keep the motor current below the max. permissible current limit.

Try to rectify this by reducing the AHU's flow/pressure set point.

2.31. Alarm groups 55 – 57: EXTRACT AIR FAN no. 1A, 2A and 3A.

The fans are numbered 1,2 and 3 starting from inspection door.

2.31.1. Alarm nos. 55.1 – 57:1 "Extract air fan no. 1A – 3A, communication error"

The size of air handling unit determines which alarms are enabled. GOLD 04-40 have one extract air fan (1A). GOLD 50-80 GOLD have two extract air fans (1A-2A). GOLD 100-120 with up to 6.5 kW motors have 3 extract air fans (1A-3A).
The alarms trip when the IQLogic control unit does not have communication with the corresponding motor controller.

For troubleshooting see Alarm no. 49:1 above.

2.31.2. Alarm nos. 55.2 – 57:2 "Extract air fan no. 1A – 3A over current"

The size of air handling unit determines which alarms are enabled. GOLD 04-40 have one extract air fan (1A). GOLD 50-80 GOLD have two extract air fans (1A-2A). GOLD 100-120 with up to 6.5 kW motors have 3 extract air fans (1A-3A).
The alarms trip when the internal monitoring function in the EC motor controller detects current supplied to the motor above the alarm limit.

For troubleshooting see Alarm no. 49:2 above.

2.31.3. Alarm nos. 55.3 – 57:3 "Extract air fan no. 1A – 3A under voltage"

The size of air handling unit determines which alarms are enabled. GOLD 04-40 have one extract air fan (1A). GOLD 50-80 GOLD have two extract air fans (1A-2A). GOLD 100-120 with up to 6.5 kW motors have 3 extract air fans (1A-3A).
The alarms trip when the internal monitoring function in the EC motor controller detects voltage below the alarm limit.

For troubleshooting see Alarm no. 49:3 above.

2.31.4. Alarm nos. 55.4 – 57:4 "Extract air fan no. 1A – 3A over voltage”

The size of air handling unit determines which alarms are enabled. GOLD 04-40 have one extract air fan (1A). GOLD 50-80 GOLD have two extract air fans (1A-2A). GOLD 100-120 with up to 6.5 kW motors have 3 extract air fans (1A-3A).
The alarms trip when the internal monitoring function in the EC motor controller detects internal voltage above the alarm limit.

The alarm can occur when incoming power supply voltage exceeds the AHU's specified limit values. 3-phase, 400V +10% or 1-phase, 230 +10%.

The alarm can also occur when the motor that rotates too fast (generator effect) because some other fan is discharging air across the AHU's fan.

Use a voltmeter to check the incoming voltage.
Also check whether the fans rotate due to external airflow when the AHU is stopped.

2.31.5. Alarm nos. 55.5 – 57:5 "Extract air fan no. 1A – 3A over temperature”

The size of air handling unit determines which alarms are enabled. GOLD 04-40 have one extract air fan (1A). GOLD 50-80 GOLD have two extract air fans (1A-2A). GOLD 100-120 with up to 6.5 kW motors have 3 extract air fans (1A-3A).
The alarms trip when the internal monitoring function in the EC motor controller detects an internal temperature above the alarm limit of 90°C.

For troubleshooting see Alarm no. 49:5 above.

2.31.6. Alarm nos. 55.6 – 57:6 "Extract air fan no. 1A – 3A fan motor blocked”

The size of air handling unit determines which alarms are enabled. GOLD 04-40 have one extract air fan (1A). GOLD 50-80 GOLD have two extract air fans (1A-2A). GOLD 100-120 with up to 6.5 kW motors have 3 extract air fans (1A-3A).
The alarms trip when the internal monitoring function in the motor controller indicates that the motor is blocked or operates too sluggishly when it is to start up.

Rotate the fan impeller by hand to check that the fan is not mechanically blocked or that the motor bearings are not beginning to become worn.

2.31.7. Alarm nos. 55.7 – 57:7 "Extract air fan no. 1A – 3A ripple error”

The size of air handling unit determines which alarms are enabled. GOLD 04-40 have one extract air fan (1A). GOLD 50-80 GOLD have two extract air fans (1A-2A). GOLD 100-120 with up to 6.5 kW motors have 3 extract air fans (1A-3A).
The alarms trip when the internal monitoring function in the motor controller indicates that harmful voltage peaks have exceeded the alarm limit.

Check the cable connections and, if appropriate instruments are available, also the appearance of the incoming alternating voltage in the power supply.

2.31.8. Alarm nos. 55.8 – 57:8 "Extract air fan no. 1A – 3A phase error"

The size of air handling unit determines which alarms are enabled. GOLD 04-40 have one extract air fan (1A). GOLD 50-80 GOLD have two extract air fans (1A-2A). GOLD 100-120 with up to 6.5 kW motors have 3 extract air fans (1A-3A).
The alarms trip when the internal monitoring function in the motor controller indicates fluctuation voltage on the incoming phases.

Use a voltmeter to check that the voltage between the incoming phases does not differ by more than 5%.
If possible, take measurements while the fans are operating.

2.31.9. Alarm nos. 55.9 – 57:9 "Extract air fan no. 1A – 3A EEpro error"

The size of air handling unit determines which alarms are enabled. GOLD 04-40 have one extract air fan (1A). GOLD 50-80 GOLD have two extract air fans (1A-2A). GOLD 100-120 with up to 6.5 kW motors have 3 extract air fans (1A-3A).
The alarms trip when the internal monitoring function in the motor controller indicates malfunction in the internal EEprom.

Replace the motor controller.

2.31.10. Alarm nos. 55.10 – 57:10 "Extract air fan no. 1A – 3A current limitation"

The size of air handling unit determines which alarms are enabled. GOLD 04-40 have one extract air fan (1A). GOLD 50-80 GOLD have two extract air fans (1A-2A). GOLD 100-120 with up to 6.5 kW motors have 3 extract air fans (1A-3A).
The alarms trip when the internal monitoring function in the motor controller indicates that the current supplied to the fan motor is so high that the internal speed reduction function continuously has to operate to keep the motor current below the max. permissible current limit.

Try to rectify this by reducing the AHU's flow/pressure set point.

2.32. Alarm groups 58 – 60: EXTRACT AIR FAN no. 1B, 2B and 3B.

The fans are numbered 1,2 and 3 starting from inspection door.
Fan designation B denotes motor controller 2 on the 10.5 kW motors.
Applies to the GOLD 80-2, GOLD 100-2 and GOLD 120-2.

2.32.1. Alarm nos. 58.1 – 60:1 "Extract air fan no. 1B – 3B, communication error"

The alarms are enabled for GOLD 80-2, GOLD 100-2 and GOLD 120-2.
For 10.5kW fans with two motor controllers, 1B-3B denote motor controller 2 (4.0kW), for fans 1 – 3 counted from the inspection door.
The alarms trip when the IQLogic control unit does not have communication with the corresponding motor controller.

For troubleshooting see Alarm no. 52:1 above.

2.32.2. Alarm nos. 58.2 – 60:2 "Extract air fan no. 1B – 3B over current"

The alarms are enabled for GOLD 80-2, GOLD 100-2 and GOLD 120-2.
For 10.5kW fans with two motor controllers, 1B-3B denote motor controller 2 (4.0kW), for fans 1 – 3 counted from the inspection door.
The alarms trip when the internal monitoring function in the EC motor controller detects current supplied to the motor above the alarm limit.

For troubleshooting see Alarm no. 52:2 above.

2.32.3. Alarm nos. 58.3 – 60:3 "Extract air fan no. 1B – 3B under voltage”

The alarms are enabled for GOLD 80-2, GOLD 100-2 and GOLD 120-2.
For 10.5kW fans with two motor controllers, 1B-3B denote motor controller 2 (4.0kW), for fans 1 – 3 counted from the inspection door.
The alarms trip when the internal monitoring function in the EC motor controller detects voltage below the alarm limit.

For troubleshooting see Alarm no. 52:3 above.

2.32.4. Alarm nos. 58.4 – 60:4 "Extract air fan no. 1B – 3B over voltage"

The alarms are enabled for GOLD 80-2, GOLD 100-2 and GOLD 120-2.
For 10.5kW fans with two motor controllers, 1B-3B denote motor controller 2 (4.0kW), for fans 1 – 3 counted from the inspection door.
The alarms trip when the internal monitoring function in the EC motor controller detects internal voltage above the alarm limit.

The alarm can occur when incoming power supply voltage exceeds the AHU's specified limit values. 3-phase, 400V +10% or 1-phase, 230 +10%.

The alarm can also occur when the motor that rotates too fast (generator effect) because some other fan is discharging air across the AHU's fan.

Use a voltmeter to check the incoming voltage.
Also check whether the fans rotate due to external airflow when the AHU is stopped.

2.32.5. Alarm nos. 58.5 – 60:5 "Extract air fan no. 1B – 3B over temperature"

The alarms are enabled for GOLD 80-2, GOLD 100-2 and GOLD 120-2.
For 10.5kW fans with two motor controllers, 1B-3B denote motor controller 2 (4.0kW), for fans 1 – 3 counted from the inspection door.
The alarms trip when the internal monitoring function in the EC motor controller detects an internal temperature above the alarm limit of 90°C.

For troubleshooting see Alarm no. 52:5 above.

2.32.6. Alarm nos. 58.6 – 60:6 "Extract air fan no. 1B – 3B fan motor blocked"

The alarms are enabled for GOLD 80-2, GOLD 100-2 and GOLD 120-2.
For 10.5kW fans with two motor controllers, 1B-3B denote motor controller 2 (4.0kW), for fans 1 – 3 counted from the inspection door.

The alarms trip when the internal monitoring function in the motor controller indicates that the motor is blocked or operates too sluggishly when it is to start up.

Rotate the fan impeller by hand to check that the fan is not mechanically blocked or that the motor bearings are not beginning to become worn.

2.32.7. Alarm nos. 58.7 – 60:7 "Extract air fan no. 1B – 3B ripple error"

The alarms are enabled for GOLD 80-2, GOLD 100-2 and GOLD 120-2.
For 10.5kW fans with two motor controllers, 1B-3B denote motor controller 2 (4.0kW), for fans 1 – 3 counted from the inspection door.
The alarms trip when the internal monitoring function in the motor controller indicates that harmful voltage peaks have exceeded the alarm limit.

Check the cable connections and, if appropriate instruments are available, also the appearance of the incoming alternating voltage in the power supply.

2.32.8. Alarm nos. 58.8 – 60:8 "Extract air fan no. 1B – 3B phase error"

The alarms are enabled for GOLD 80-2, GOLD 100-2 and GOLD 120-2.
For 10.5kW fans with two motor controllers, 1B-3B denote motor controller 2 (4.0kW), for fans 1 – 3 counted from the inspection door.
The alarms trip when the internal monitoring function in the motor controller indicates fluctuation voltage on the incoming phases.

Use a voltmeter to check that the voltage between the incoming phases does not differ by more than 5%.
If possible, take measurements while the fans are operating.

2.32.9. Alarm nos. 58.9 – 60:9 "Extract air fan no. 1B – 3B EEprom error"

The alarms are enabled for GOLD 80-2, GOLD 100-2 and GOLD 120-2.
For 10.5kW fans with two motor controllers, 1B-3B denote motor controller 2 (4.0kW), for fans 1 – 3 counted from the inspection door.
The alarms trip when the internal monitoring function in the motor controller indicates malfunction in the internal EEprom.

Replace the motor controller.

2.32.10. Alarm nos. 58.10 – 60:10 "Extract air fan no. 1B – 3B current limitation"

The alarms are enabled for GOLD 80-2, GOLD 100-2 and GOLD 120-2.
For 10.5kW fans with two motor controllers, 1B-3B denote motor controller 2 (4.0kW), for fans 1 – 3 counted from the inspection door.
The alarms trip when the internal monitoring function in the motor controller indicates that the current supplied to the fan motor is so high that the internal speed reduction function continuously has to operate to keep the motor current below the max. permissible current limit.

Try to rectify this by reducing the AHU's flow/pressure set point.

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