

Troubleshooting Guide

Merlin CT1250 Gas Interlock System



Gas Safety Products

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1 General information

The Merlin CT1250 is a ventilation interlock panel with two built in current monitors. This is used to monitor up to two fans & has the facility to accept remote emergency shut-off buttons. It can also be integrated with a BMS and fire alarm.

Please note the Merlin CT1250 is not a fan speed controller and is only used to monitor the fans and control the gas solenoid valve.

2 Fault LED

2.1 No Power LED Illuminated

- 1 If the system is connected to the mains supply, the Power LED will illuminate. Please ensure there is in fact 230/240V going to the 'Power IN' terminal.
- 2 If the system is connected to the mains supply and the power LED is not illuminated please check to see if the 3A fuse is still intact.
- 3 If none of the above have rectified the fault please contact S&S Northern for further assistance.

2.2 Emergency Stop Fault

- 1 If the front fascia emergency stop has been pressed, please re-press the button to release then reset the panel using the key switch.
- 2 If you have a remote emergency stop connected to the Merlin CT1250 please ensure this has not been activated. If this has please reset the emergency stop then reset the CT1250 with the key.
- 3 If you have multiple remote emergency stops connected to the same control panel, please ensure these have been wired in a loop series to our panel and connected to the 'EM REM' terminal in the Merlin CT1250.
- 4 If you are not using an additional emergency stop, please ensure the 'EM REM' terminal is linked out. Check that the link is securely connected by ensuring you have continuity.
- 5 If none of the above have rectified the fault please contact S&S Northern for further assistance.

2.3 Fan Fault

- 1 Ensure the fan(s) are operational.
- 2 If either of the in-built current monitors are not being used, ensure the relevant air pd terminal has been linked out.
- 3 Please ensure the CT1250 has been correctly wired as per the installation instructions.
- 4 If the green LED, located below the min/max potentiometer is not illuminated the panel will need to be calibrated as per the installations instructions. (If this has been completed and still the LED won't illuminate this could be due to the fan's current being too low for the panel to detect).
- 5 If none of the above have resolved the error please contact S&S Northern for further assistance.

2.4 Additional common faults

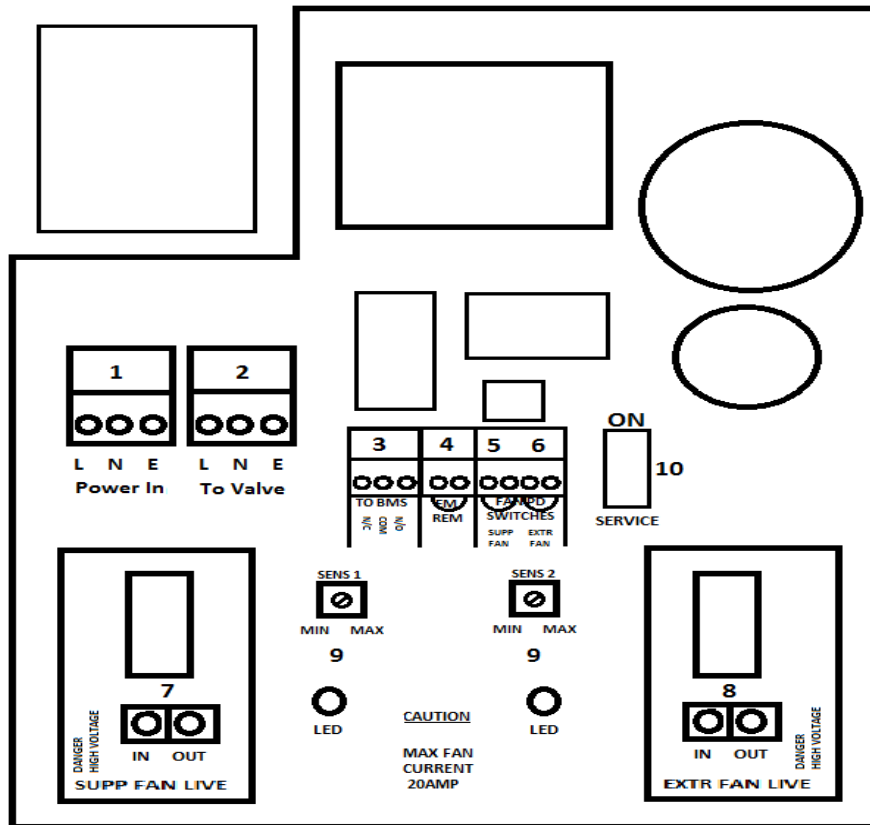
- 1 Gas is on without the fans running - The fan PD terminal links have been left in? The links should be removed for the fans we are monitoring. By having the link still in the panel will never detect a fan fault regardless of it being calibrated or not.
- 2 Incorrect current monitor wiring.
- 3 If the fans are not active but the panel says otherwise and the gas is on the min/max potentiometer may be set to maximum. This results in the potentiometer becoming oversensitive to the point it could pick up interference.
- 4 **Service LED is illuminated** – The service dipswitch will be set to the 'ON' position. This may have been done to bypass one of the 2.3 faults for maintenance purposes.

3 Operation Instructions

3.1 How to turn the system on and off

1. Turn the Fans On.
2. Turn the key switch to on position.
3. To turn the system off, turn the key switch to off position.

CT1250 Wiring Diagram



1. Mains Input 230VAC
2. Gas Solenoid Valve Power Output, 230VAC.
3. BMS output contacts. Normally Closed, Common and Normally Open.
4. Remote EM Stop buttons and Fire Alarm input wired in series (purchased separately). **VOLT FREE INPUT**
5. Supply Fan external pressure differential switch or current switch. **VOLT FREE INPUT**
6. Extract Fan external pressure differential switch or current switch. **VOLT FREE INPUT**
7. Supply Fan current monitor, **MAX 20AMPS**
8. Extract Fan current monitor, **MAX 20AMPS**
9. Potentiometers.
10. Service switch.

Please note, Mains wires and low voltage wires should not be run in the same conduit as per the **LOW VOLTAGE DIRECTIVE**

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