

Settings and troubleshooting

Presentation of the display

AX, AD and AR gas heaters are equipped in series with a new control board :

- It informs on the unit's state : Stop, ventilation, burner ON, maxi or mini power, error.
- It is possible to adjust some setting values such the ventilation and the combustion, depending on the needs (must be realized by qualified person trained to the product specifications.)



Operating principle

How works the 2-stages power modulation ?

If the blowing temperature exceeds the value of the maximum power temperature (65°C factory setup), the heater goes to low power.

The heater goes back to high power within two conditions :

- If the temperature of the fumes in low power is under 90°C the heater goes automatically to high power to avoid any condensation issues into the first heat exchanger.
- If the blowing temperature is lower than the maximum power temperature with a differential of 5°C (= 60°C factory setup)

For condensing gas heater, condensation is made only into the second heat exchanger (condensing heat exchanger).

Temperatures into the 1st heat exchanger change between 90-160°C, in the 2nd between 45-55°C. It is why the condensing heater is a full condensing unit, in low and high power.

Heater settings

How do I adjust the ventilation?

There are two ways to start the fan on new gas heater:

- Delay time: whatever the temperature, the fan starts X seconds after the ignition of the burner and will stop when the burner stops. Factory setting : 60 seconds
- Blowing temperature : the fan starts depending on the setting value. Factory setting : 45°C

Heater settings

How do I adjust the combustion?

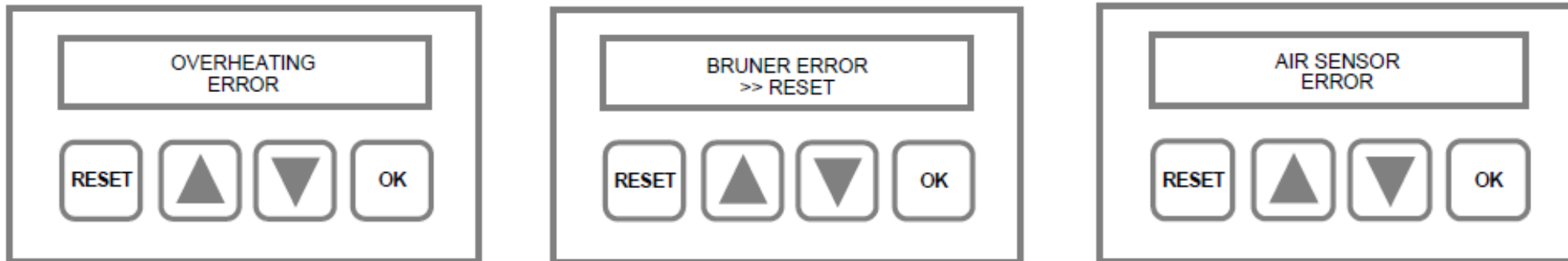
At startup, the exhaust fan goes to the value defined in the setup “Exhaust fan start speed”. Once the burner is ignited, the exhaust fan adapts its speed depending on the depression read by the air sensor. If the air pressure is too high, the exhaust fan decrease its speed. If the air pressure is too low, the exhaust fan raise its speed. There are 2 setup values :

- High power value – Factory setting : 160 Pa
- Low power value – Factory setting : 60Pa

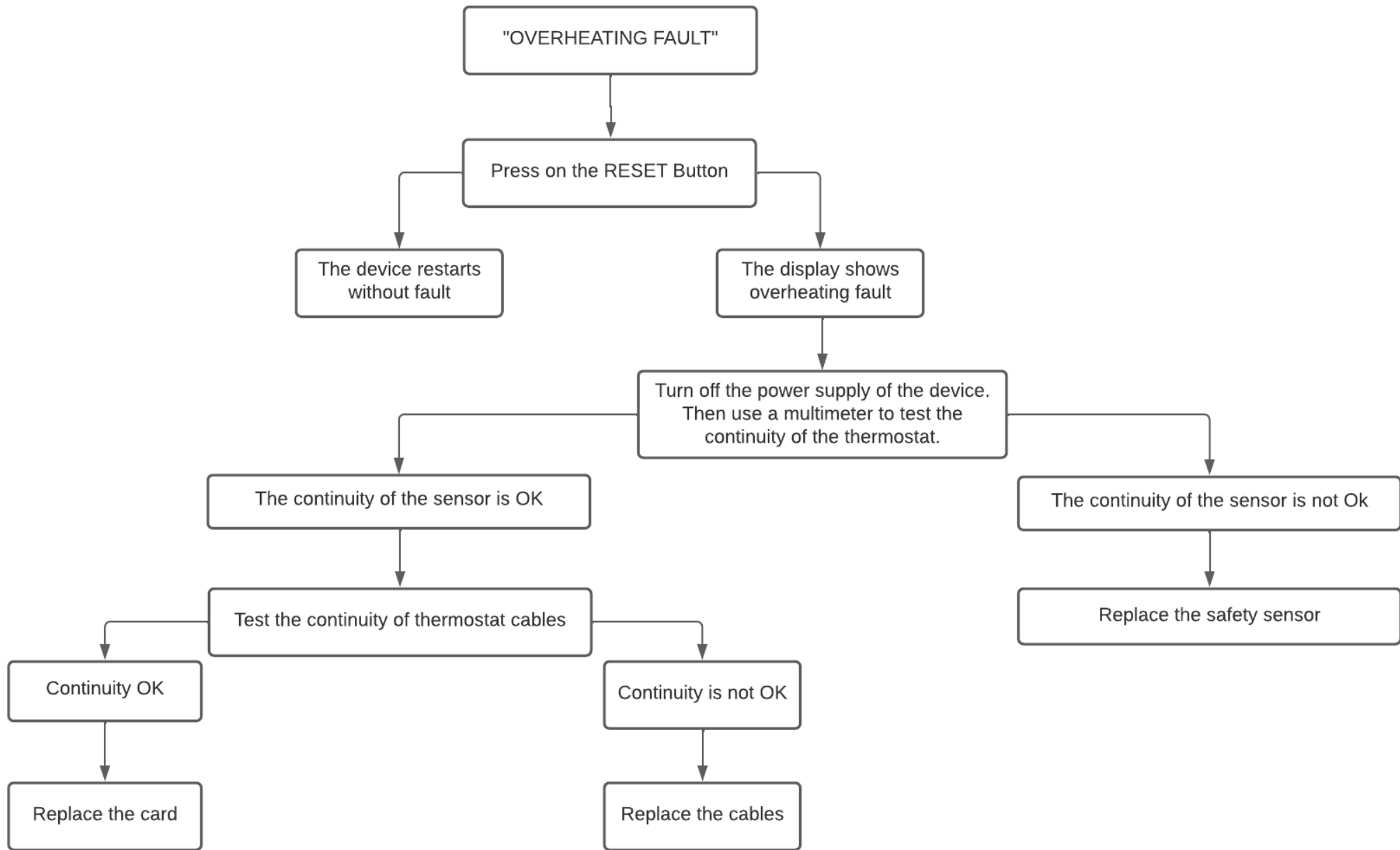
If the exhaust fan cannot reach the pressure in high power, the burner will switch automatically to low power. If the air pressure is lower than 15% of the pressure in low power, the burner will go into error for air lack. All along the operation, the exhaust fan will adapt its speed to the setting value depending on the power.

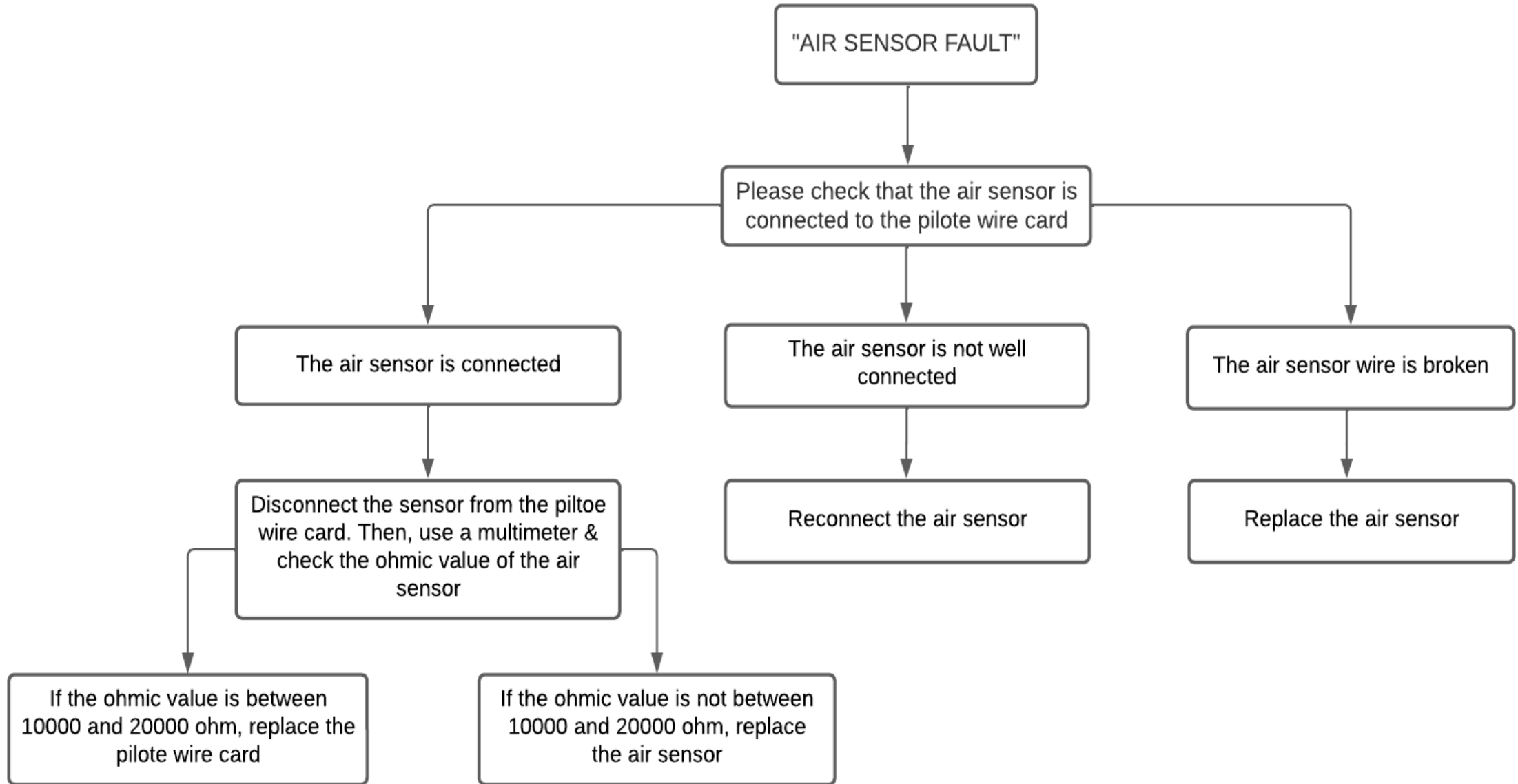
→ **Benefits: self adaptation of the unit whatever the losses of the chimney.**

The control board detects automatically the errors of the systems. It helps the technical service to identify quickly why the unit is not working. Here is the list of the different errors given by the control board: Phase/Neutral inversion / Overheating / Air pressure sensor error / Fume sensor error / Condensate error / Exhaust fan error / System error.



The power supply and gas supply must be cut before any intervention on the heater.





"AIR SENSOR FAULT"

Please check that the air sensor is connected to the pilote wire card

The air sensor is connected

The air sensor is not well connected

The air sensor wire is broken

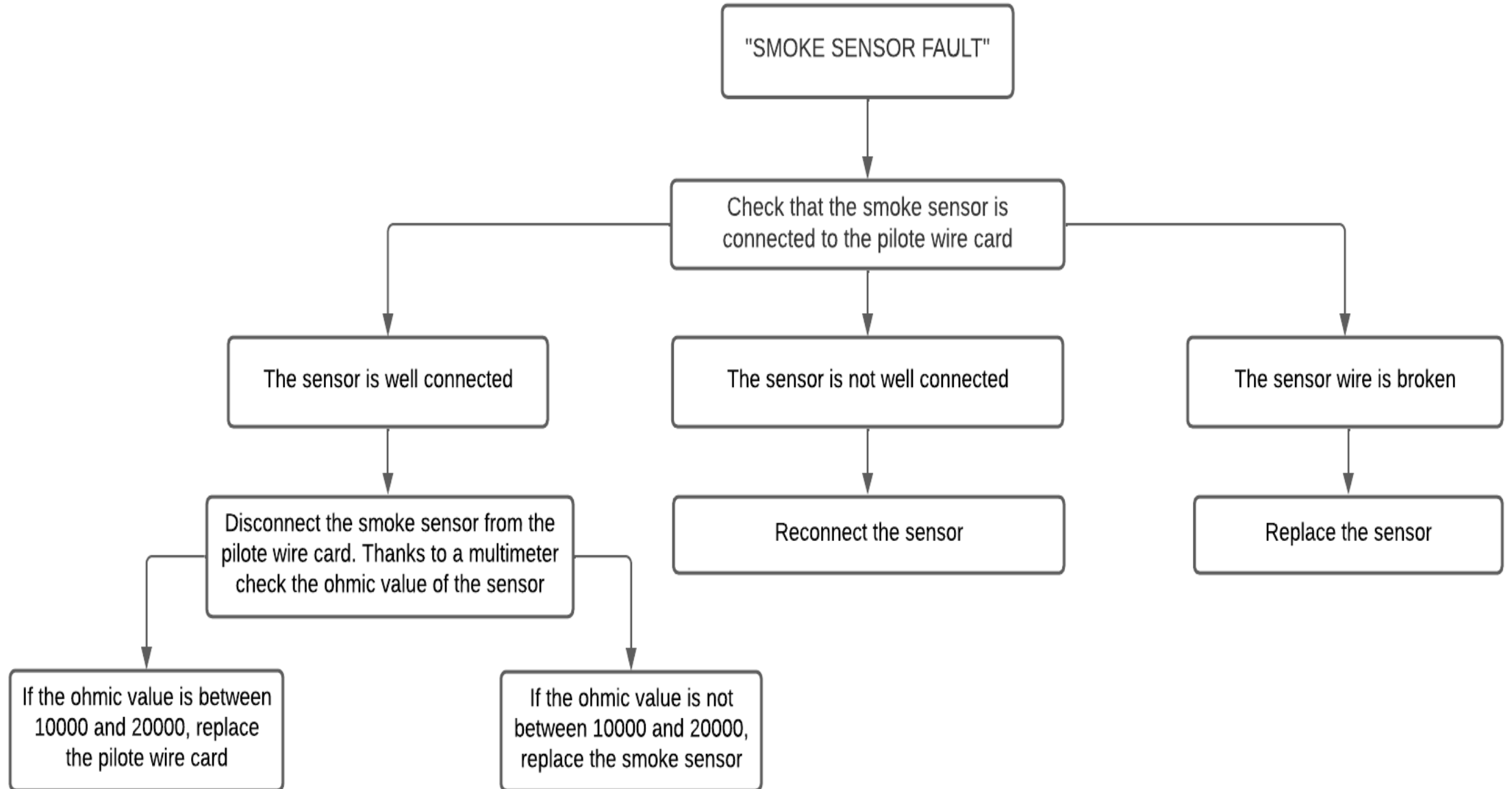
Disconnect the sensor from the piltoe wire card. Then, use a multimeter & check the ohmic value of the air sensor

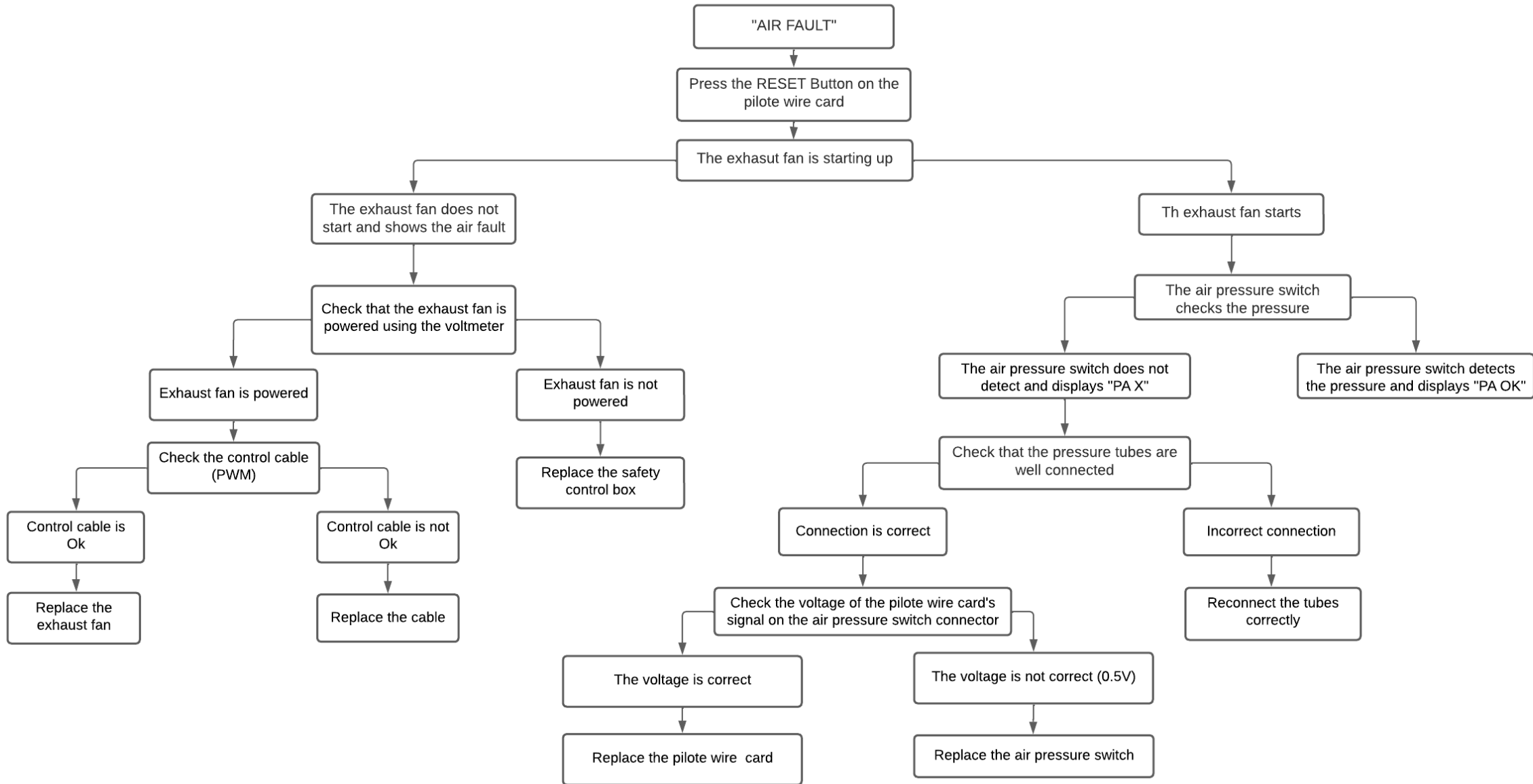
Reconnect the air sensor

Replace the air sensor

If the ohmic value is between 10000 and 20000 ohm, replace the pilote wire card

If the ohmic value is not between 10000 and 20000 ohm, replace the air sensor





"BURNER FAULT" or "STARTUP FAULT".

Press the RESET Button on the pilote wire card

The exhaust fan starts

Presence of ignition spark

Check the opening of the gas valve

Gas valve closed

Check the gas supply

If there is gas supply, check the input pressure

If the input pressure > 50mb there is an issue with the gas pressure regulator

If gas valve is not powered

Replace the control box

Gas valve openned

Check if there is a flame

No flame. check that the network gas pressure pressure is correct complies with the label of the unit

Control the gas network

Not Purge

Purge the Network

Network Purge ok ?

No

Control the gas network

Flame is maintained 3 seconds

No

Ramp pressure according to the technical manual

Yes

The device is in operation

Connected

Test the continuity of the cable with a multimeter

Continuity Ok

Check the state of the ionization sensor

Replace the ionization sensor

Replace the safety control box

Continuity is not OK

Remplacer la cable de Ionisation

No ignition spark

Check the condition of the ignition sensor

Electrode OK

Check that the ignition transformer is connected to the ramp

Connected

Testing the continuity of ignition cable

Continuity Ok

Replace the control box

Not Connected

Electrode is not OK

Replace the electrode

Continuity is not OK

Replace the ignition cable

Connect the probe

Thank you for your attention