

Filter Pinout

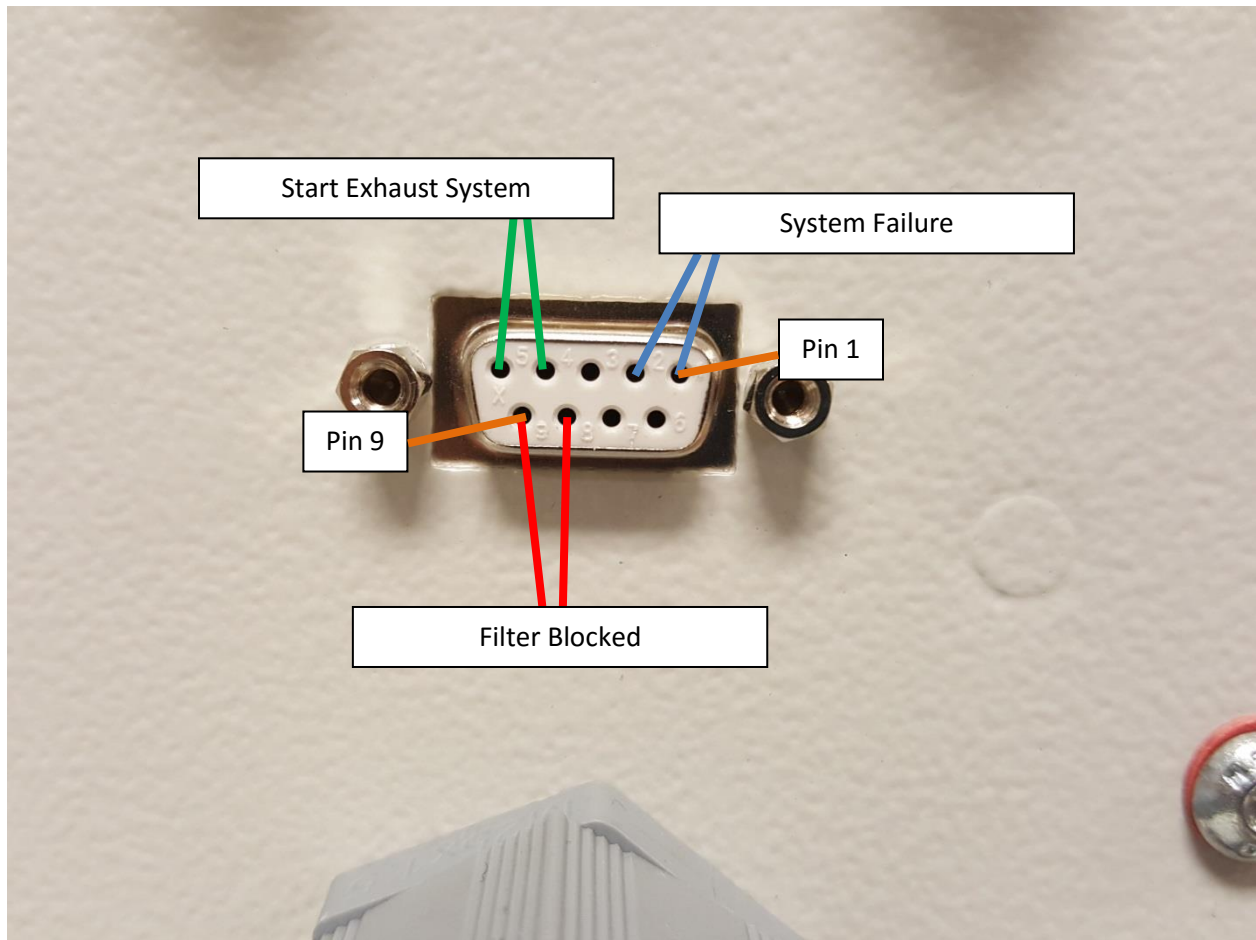


Figure 1: An example of a D-Sub 9 connector on the exhaust system.

Pins 4 & 5: Normally Open – Output from Epilog Controller

The controller connects these two pins to start the exhaust system.

Pins 1 & 2: Normally Open – Input to Epilog Controller

The exhaust system should connect these two pins when there has been a system failure of the exhaust system.

Pins 8 & 9: Normally Open – Input to Epilog Controller

The exhaust system should connect these two pins when the filter appears to be blocked or there is low air flow in the system.

Epilog Controller Pinout

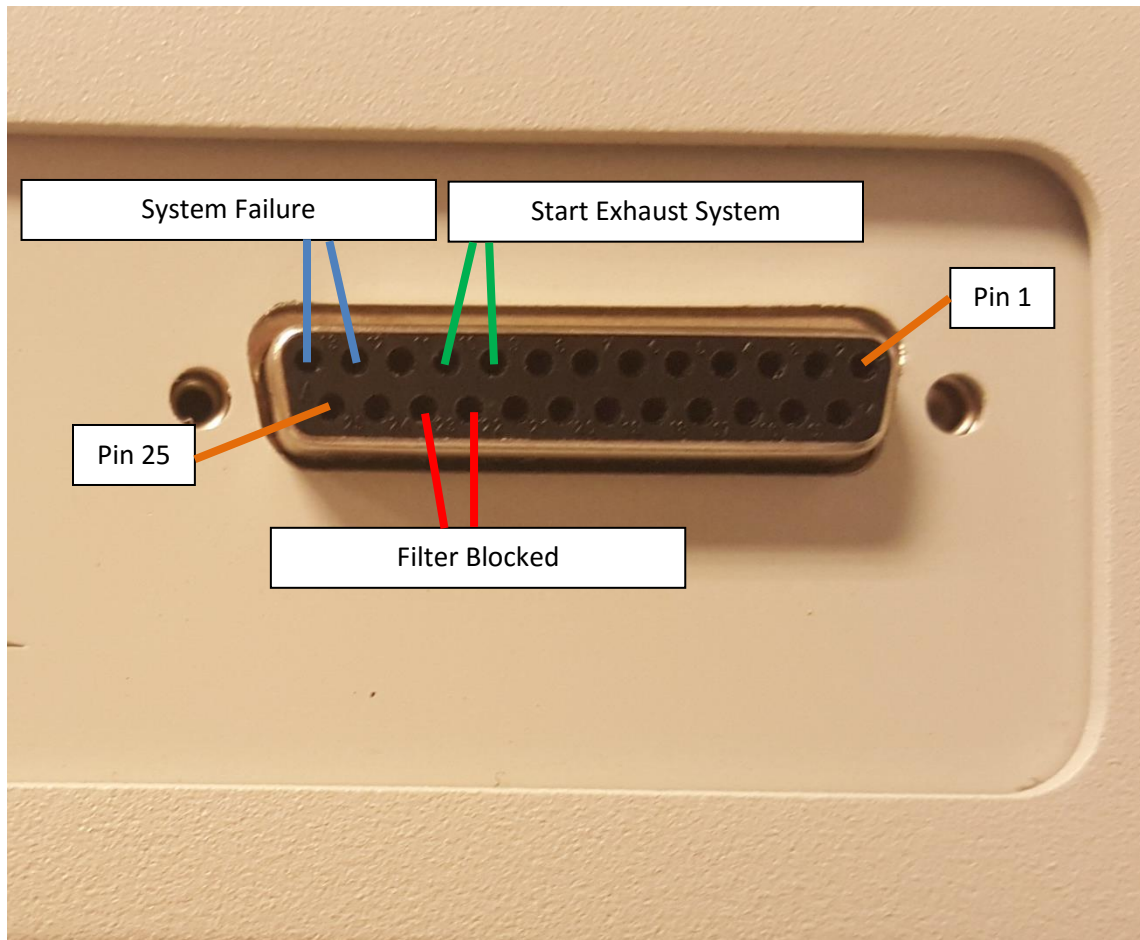


Figure 2: the D-Sub 25 connector on the side of the Epilog Fusion M2 machines.

D-Sub25

Pins 9 & 10:

These pins connect to pins 4 & 5 of the D-sub9 exhaust system port.

Pins 12 & 13:

These pins connect to pins 1 & 2 of the D-sub9 exhaust system port.

Pins 22 & 23:

These pins connect to pins 8 & 9 of the D-sub9 exhaust system port.

Electrical Requirements

Figure 3 below shows the circuit for the output on the filter control system. When the filter control unit wishes to turn on the exhaust system, the contacts on the relay are closed, thus connecting the two output pins. These output pins correspond to pins 9 & 10 on the filter control unit and pins 4 & 5 on the exhaust system. When creating a circuit to detect when these two wires have been connected, **no more than 200 mA** may pass through these wires.

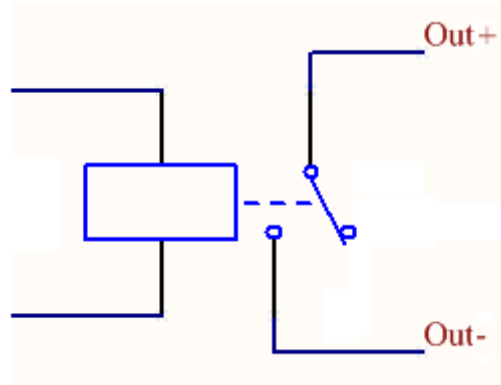


Figure 3: The circuit for the "start exhaust system" signal.

When creating the “system failure” and “filter blocked” signals, the two wires for each signal should be shorted together using a relay. This means that the exhaust system will not actively dump any current through these wires. The Epilog filter control unit will use approximately 30 mA to detect when those wires have been connected.

Control Operations

The filter control operation is very simple. When a user begins to run a laser engraving/cutting job, the filter controller turns on the exhaust system immediately. When the job has been cancelled, paused, or finished, the filter control unit waits 15 seconds before turning off the exhaust system. This allows any extra fumes to be evacuated from the Epilog laser engraver.

Note: It is up to the exhaust system manufacturer to add their own delay once the filter control has commanded it to stop if the manufacturer wants a longer delay.