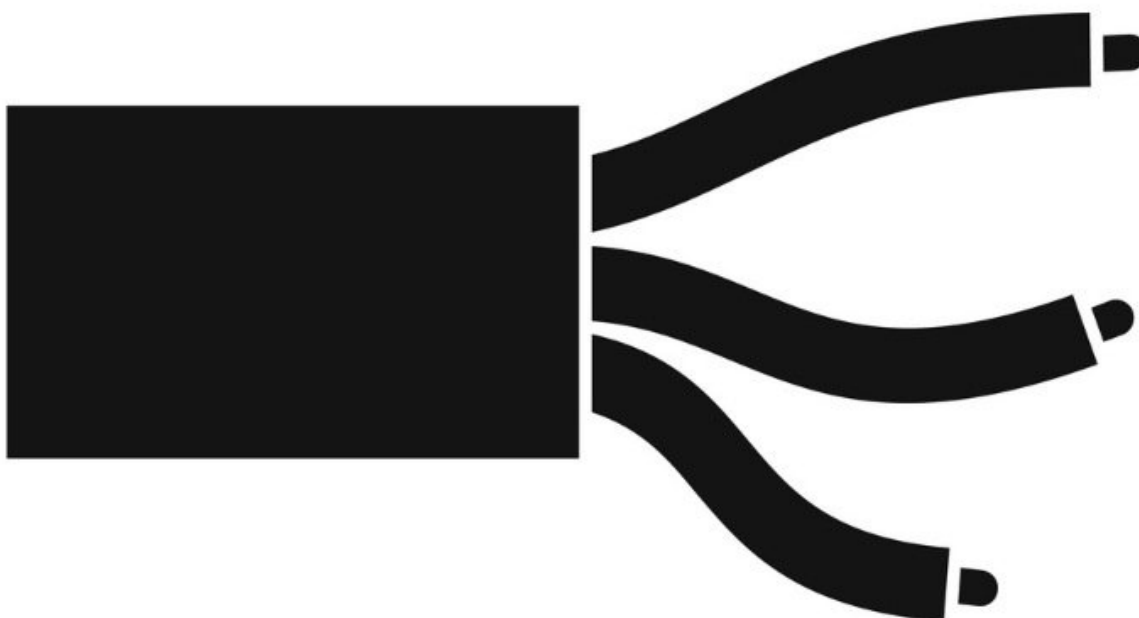# Wire to external control

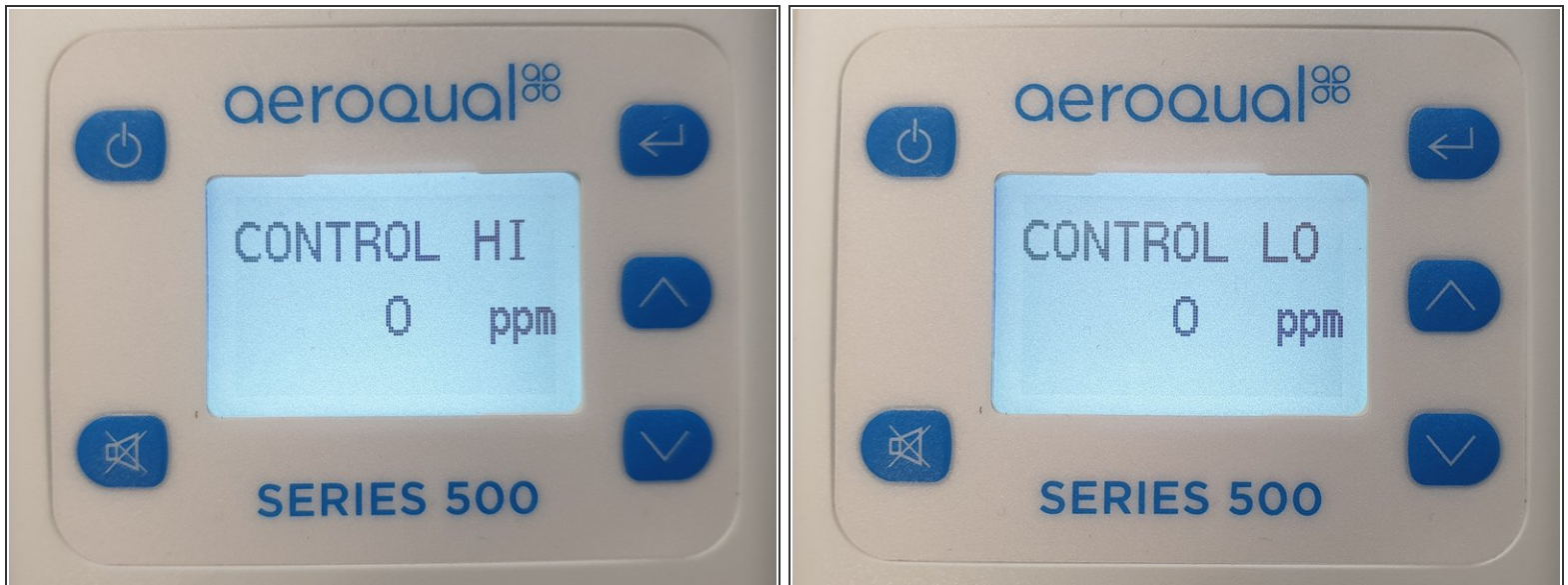Written By: StJohn Vuetilovoni

INTRODUCTION

Use this guide to connect your handheld monitor to an external controller.

Wire the control pin to supply the generation of gas that's between your specified high and low concentration limits.
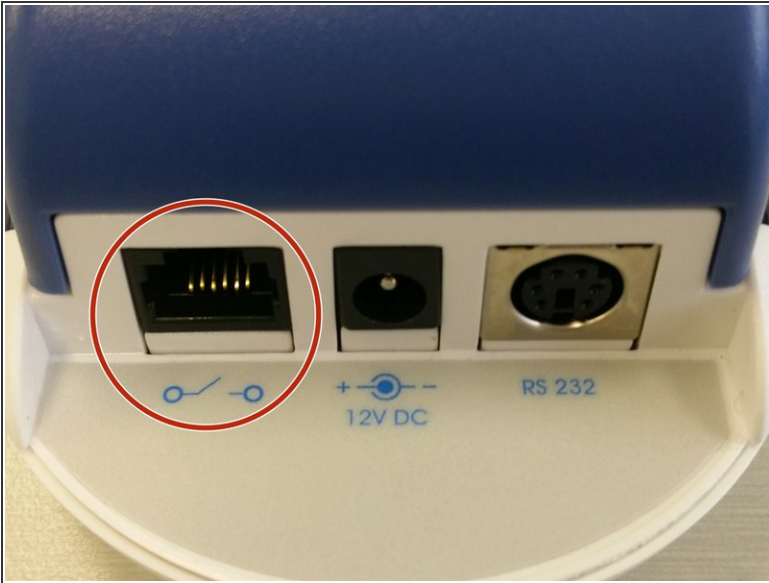
Note: All transistor outputs are open collector current sink. The maximum rating of these transistor outputs is 12VDC at 150mA. If you connect a relay or any other inductive load to the transistor outputs, a back EMF suppression diode must be fitted across the load.
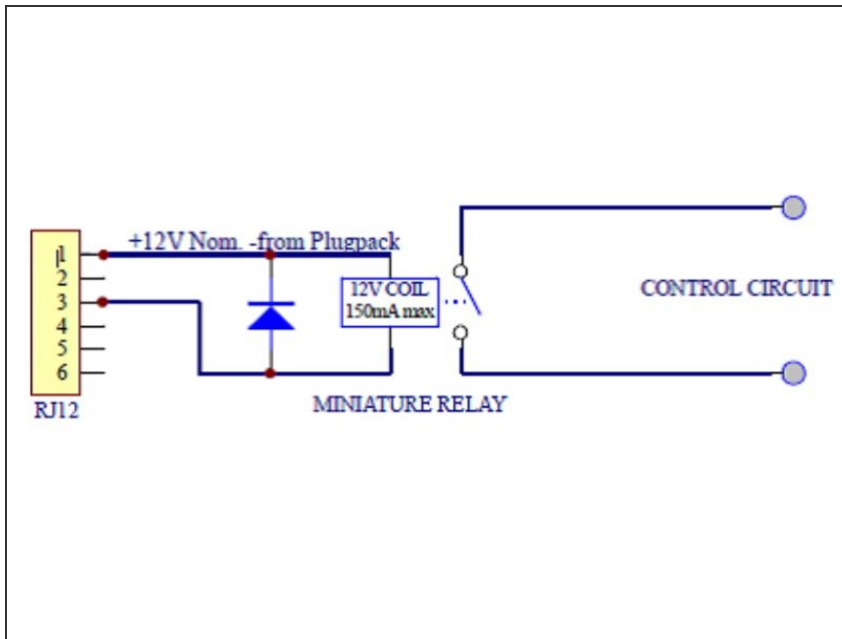
Step 1 — Configure set points

- Configure the control set points on your handheld monitor.

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Step 2 — Identify pins

- The external connector requires an RJ12 connector. The pin designations for the external output connector are numbered 1 to 6.

  - 1 = 12VDC (closest to the 12V DC power jack)

  - 2 = Analogue output 0-5V

  - 3 = Control

  - 4 = High alarm

  - 5 = Low alarm

  - 6 = Ground (furthest from the 12V DC power jack)

- The RJ12 connector offers two possibilities for wiring, either a switch to GND, or a switch to 12V output.

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Step 3 — Switch to 12V output

- To switch to 12V output, wire to pins:

  - 3 (Control)

  - 1 (12VDC).

ⓘ If the 12 V output is used, the power for the relay coil is supplied by the Aeroqual AC/DC adapter. In this case, ensure that the relay coil does not draw more than 150 mA and that a protection diode is inserted with correct polarity across the relay coil.

⚠ Failure to insert a circuit protection diode may cause the circuit to not work, and result in damage to the monitor if a voltage spike is created by the relay.

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Step 4 — Switch to GND

- To switch to GND, wire to pins:
  - 3 (Control)
  - 6 (Ground).

- ⓘ If the switch to GND output is used, make sure the relay coil doesn't draw more than 150 mA, that the voltage doesn't exceed 24V and that a protection diode is inserted with correct polarity across the relay coil.

- ⓘ Wiring for control will only operate while the handheld monitor is powered by the supplied AC/DC adapter.

For further support, contact Technical Support.

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