

MicroBio MB2-RSH

Installation and Operation Supplement



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Document Issue

Issue	Description	Date	Revision by	Approved
1	First release	20 June 2010	DCP	SNJP
2	Added section on bio-decontamination	23 July 2010	SNJP	DCP

Technical Specification

Please refer to the MicroBio Manual P0001W003 for full detailed specification of the MicroBio MB2.

The MB2-RSH model is capable of driving a remote sampling fan up to a distance of 20m from the control unit.

Installation

The first task is to run the connecting cable from where the sampling head is to be positioned to where the control unit is to be located.

Two cable options can be supplied. One is with an extension cable with connectors at each end, the other with one of the connectors not fitted. By not terminating one of the connectors enables the cable to be passed through glands or bulkheads as required by the end user. Once the cable is routed, the unterminated end, located where the control unit is, must have the supplied locking connector fitted. Note that the pre-fitted connector on the extension cable, then end labelled "RSH", must be where the remote sampling head is located.

Fitting the Connector for Unterminated Cables

The following tools are required to fit the connector:

- 1 x Soldering iron and solder (lead free)
- 1 x 2.5mm slot screwdriver

The connector is assembled in the order as shown in the photographs below.

1. Dismantle the connector by first removing the screw on the side of the connector.



2. Fit connector housing and strain relief onto cable end.



3. Remove cable clamp.



4. Fit frame onto cable end and refit cable clamp.





5. Solder cable onto connector pins. The connector body has pin numbers embossed onto the surface adjacent to the pins.
 - i. Pin 1: Red
 - ii. Pin 2: Blue
 - iii. Pin 3: Screen
6. Fit pin housing back into frame noting that there are raised pegs on the rim of the pin housing that sit into holes on the frame. Then replace frame cover.



7. Slide the assembly, strain relief and metal shell together.

8. Align shell so that the brass thread of the frame body can be seen, then replace the housing screw and tighten.



Connecting the Control Unit and remote Sampling Head

Now position the remote sampling head and connect the fly lead on this to the extension cable end labelled “RSH”. The connectors have a screw locking mechanism. Screw the two halves together by twisting the outer ring of the plug from the the remote sampling head connector into the cable socket on the extension cable. Take care not to cross thread.



The remote sampling head

Now connect the other end of the extension cable labelled “CTRL” into the rear of the control unit.



Calibration

The MB2-RSH can be calibrated in the same manner as any other MicroBio bioaerosol sampler.

Remove the remote sampling head from its normal location, disconnect the extension cable from the control unit and then plug the remote sampling head directly into the control unit as below:



If extension cables over 10m in length are used, then it is recommended that the sampler is calibrated with a cable of the installed length fitted to compensate for any voltage drops on longer cables.

For calibration specifics, please refer to document P0001W002 for calibration methodology or if using the P0059 Validation Kit, refer to P0059W003.

Operation

Once installed, the MB2-RSH operates in exactly the same way as a conventional MB2 bioaerosol sampler.

For operation instructions, please refer to the MicroBio Manual, document number P0001W003.

Cleaning and bio-decontamination

The control unit and the remote sampling head may both be cleaned using conventional sanitising wipes, such as Tuffie-5 or 70% IPA.

As the remote sampling head will normally be fixed within a compartment, it is suitable for use with Hydrogen Peroxide Vapour (H₂O₂ vapour) bio-decontamination.

Tests have been carried out by Bioquell (UK) Ltd on sensitive electronic equipment to determine effects of such processes. The conditions of these tests were:

Gas Concentration	1000 ppm
Conditioning time	20 minutes
Gassing time	30 minutes
Aeration time	150 minutes

As the MicroBio MB2-RSH has a fan within the remote head it is recommended that during the decontamination process the MicroBio MB2-RSH is set to sample 2000 litres several times so that the H₂O₂ vapour may be drawn through the head, fan and exhaust for optimum decontamination.

Throughout the trials, Bioquell demonstrated that bio-decontamination with H₂O₂ vapour does not appear to be detrimental in any way, effect operational aspects or aesthetics of sensitive electronic equipment.

As the control panel will not normally be exposed to bio-contaminants as the remote head, cleaning using sanitising wipes may suffice, but it is also suitable for use within H₂O₂ vapour environments.

For further information on Bioquell H₂O₂ vapour Material Compatibility please refer to their document BDS-3-MATCOMP-V3.2 available from their website www.bioquell.com or contact them on +44 (0)1264 835835.