TEL AFA 500 MK3 Fume Hood Monitor — Installation and Operation Guide

STARTUP

The AFA 500 must be field-calibrated after an HVAC professional balances the room air supply and exhaust. When the unit is powered up, the following sequence of events occurs:

- 1. The alarm performs a self-test of its functions, LEDs and audible alarm (approximately 2 seconds) and then initiates a delay timer of 30 seconds to allow the airflow sensor to stabilize.
- 2. During the 30-second stabilizing period, all alarms and relay outputs are deactivated and the red and green LEDs remain on.
- 3. At the end of the delay, the unit will do one of two things:
 - a. If the monitor has been calibrated, the unit enters normal operating mode (solid green light for safe velocity, red light and audible alarm if low velocity).
 - b. If the unit has not been calibrated, the red and green LEDs will flash, the audible alarm will be muted.

CALIBRATION — SINGLE POINT (DEFAULT)

 \circ

81mm

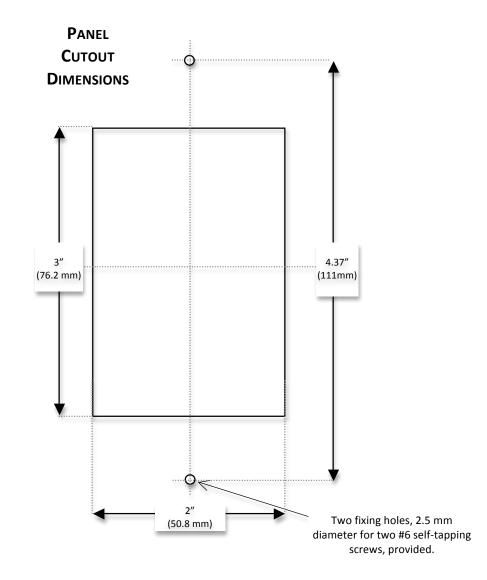
(3.19")

1. Determine the desired alarm point, then use a calibrated instrument to position the sash such that the face velocity of the hood is equivalent to the **ALARM PANEL DIMENSIONS**

132mm (5.2")

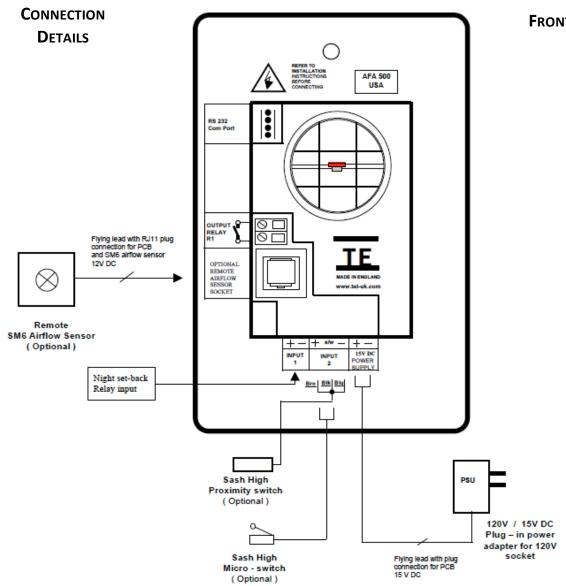
desired alarm point.

- Press and hold the ENTER button for 5 seconds to enter Calibration Mode. This is indicated by both red and green LEDs flashing with the audible alarm beeping.
- 3. To initiate calibration, press and hold the ENTER and SET buttons at the same time. The unit will sample the airflow for 5 seconds, during which time the green LED goes off and the red LED flashes. The audible alarm continues to sound during the air sampling.
- If calibration is successful, the monitor will give a two-tone beep at the end of the air sample, and then automatically enter run mode.
- If the ENTER or SET button is released during the air sampling period, or if the airflow is fluctuating too much, the alarm will emit a lower-frequency buzzing for a short period and then re-enter calibration mode. If this occurs, press the ENTER and SET buttons again to repeat the airflow sampling.
- When calibration is complete, lower the sash to operating height and the green LED should light, indicating an airflow greater than the calibrated alarm point. If the airflow drops below the alarm point, the unit will go into alarm condition (red LED flashing, audible horn beeping).



For complete manual and product information, log on to http://www.tel-uk.com. For support, call Holland Safety Equipment at 847-680-9930.

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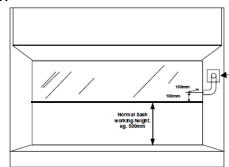
FRONT POST INSTALLATION 1 inch female adapter AFA500 mounted on front of side post Fume hood Fume hood

outer skin

SIDEWALL SENSOR PLACEMENT

inner skin

The monitor must be positioned where it can "see" the room pressure of the laboratory. The back connection spigot of the monitor will accept the provided air hose, which should be connected to the inner chamber of the fume hood. The ideal position for the other end of the hose, for most fume hoods, is 100mm (4 inches) back from the sash and 100mm higher than the normal sash opening height through the inner side wall.



Mount the monitor on the front of the fume hood and use the provided hose. For

fume hoods with a single skin side wall or a double skin with a small gap between them, it may not be possible to achieve the ideal sensing position using the provided hose. With a single skin side wall it is possible to fix the sensor on the outside of the fume hood and connect directly to the inner chamber in the ideal position. This method can only be used for up to two fume hoods when they are positioned side by side (using the two outer walls).

The sensor should not be mounted in a position were it is subject to drafts from the laboratory air input or ventilation system.

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