

BFM Emergency Microphones

Operating Instructions

Baldwin Boxall Communications Ltd.

Wealden Industrial Estate, Farningham Road
Crowborough, East Sussex, TN6 2JR

Telephone: 01892 664422 Fax: 01892 663146

Website: www.baldwinboxall.co.uk

Email: mail@baldwinboxall.co.uk

BALDWIN BOXALL
COMMUNICATIONS

BFM Emergency Microphones

The BFM range of emergency microphones are designed for use in any emergency situation. The models in the range are:-

Single Zone:	BFM01	Four Zone:	BFM04
Eight Zone:	BFM08	Sixteen Zone:	BFM16

Operation

By operating the PTT on the system microphone without selecting any zones, the announcement will be broadcast to all zones. The acknowledge LEDs on all zones will illuminate.

If a zone or zones are selected by pressing the zone select key the selected LED will illuminate. When the speak key on the microphone is pressed the acknowledge LED for the selected zone or zones will illuminate and the announcement will only be broadcast to these zones. On releasing the speak key, selected zones will be cancelled. The speak key on the control panel operates in parallel with the fist microphone key.

During the announcement the speech volume indicator will fluctuate. Try to keep the indication constant without the yellow segment illuminating. Maintaining a constant level will aid intelligibility.

Features

The ALL key on the control panel selects all zones bypassing all the select electronics in the case of failure but will operate all the acknowledge LEDs.

The fist microphone speak key cable to the control panel is checked for breaks ensuring operation when required.

The control panel plugs into a PCB which has terminations for PYRO, FP200 etc by a ribbon cable connector allowing ease of servicing and installation.

The microphone, pre-amplifiers and interconnecting cable are monitored by injecting a surveillance signal into the pre-amplifier via the microphone capsule. This signal is selectable to either 20KHz or 1.5KHz using 3 on the DIL switch (see Figure 2). When the press to Talk switch is operated this signal is suppressed and the control equipment detector will now detect the speech content or they may be disabled when the microphone is in use. An internal pre-set adjusts the output level of the surveillance signal to line.

A dynamic limiter may be selected which ensures that the audio output signal remains fairly constant irrespective of input level change, preventing system over-loading when different personnel use the microphone. If the limiter is required select 1=ON, 2=OFF on the DIL switch (see Figure 2).

Multi-zone Versions - BFM04, BFM08, BFM16

The zone select outputs are compatible with our Compact system which monitors for an open or short circuit fault condition. A 12V zener diode provides an end-of-line termination and the select condition is by closing the select line to 0V via a 1K2 resistor.

If the system is non-Compact design the zone select lines are monitored for an open circuit condition only. The surveillance signal will be suppressed and a fault will be announced if any select output has a DC potential lower than 6V presented to it from the central equipment.

Note Any unused zone select outputs must be connected to terminal 8 or a fault will be announced. See Figure 1.

The access output is monitored in a similar way and if unused ensure that P4 link is installed in the no access position or a fault will be announced.

Single-zone Versions - BFM01

As there are no zone select outputs, the access output is used and P4 link should be removed to enable monitoring.

All of these microphones are housed in a sealed lockable steel enclosure with bezels available for flush mounting. Use the 'BFMBEZ1' for the BFM01 and BFM04, and the 'BFMBEZ8' for the BFM08 and BFM16. (see Figure 3)

FIRE MICROPHONE SPECIFICATION

	Low gain limiter off	High gain limiter on
Nominal output level (transformer isolated)	0.775V (0dBm)	2.5V (+10dBm)
Maximum output level	7.5V (+20dBm)	
Output source impedance	250 Ohms	
Maximum surveillance signal output 1.5K	300mV	2.5V
Maximum surveillance signal output 20K	450mV	2.5V
Overall frequency response	150Hz - 5kHz	
Zone select outputs	Open collector closes to 0V via 1K2 resistor	
Access output	Closes to 0V via 1K2 resistor	
Microphone type	Hand-held dynamic noise cancelling incorporating speak key	
Optional additional switches:-		
single & 4-zone - BFM01, BFM04	Spaces & holes for 3 x 16mm switches	
8 & 16-zone - BFM08, BFM16	Spaces & holes for 5 x 16mm switches	

	<i>single zone</i>	<i>4-zone</i>	<i>8-zone</i>	<i>16-zone</i>
Power requirements - idle	50mA	50mA	50mA	50mA
(20-30V DC) - max	60mA	140mA	180mA	300mA



Low Voltage Directive
73/23/EEC as amended
by 93/68/EEC

EMC Directive
89/336/EEC as amended
by 92/31/EEC and 93/68/EEC

Applies only when the items are correctly fitted and operated in or with products of current manufacture and are installed in a recommended enclosure.

Figure 1 - FIRE MICROPHONE TERMINATIONS

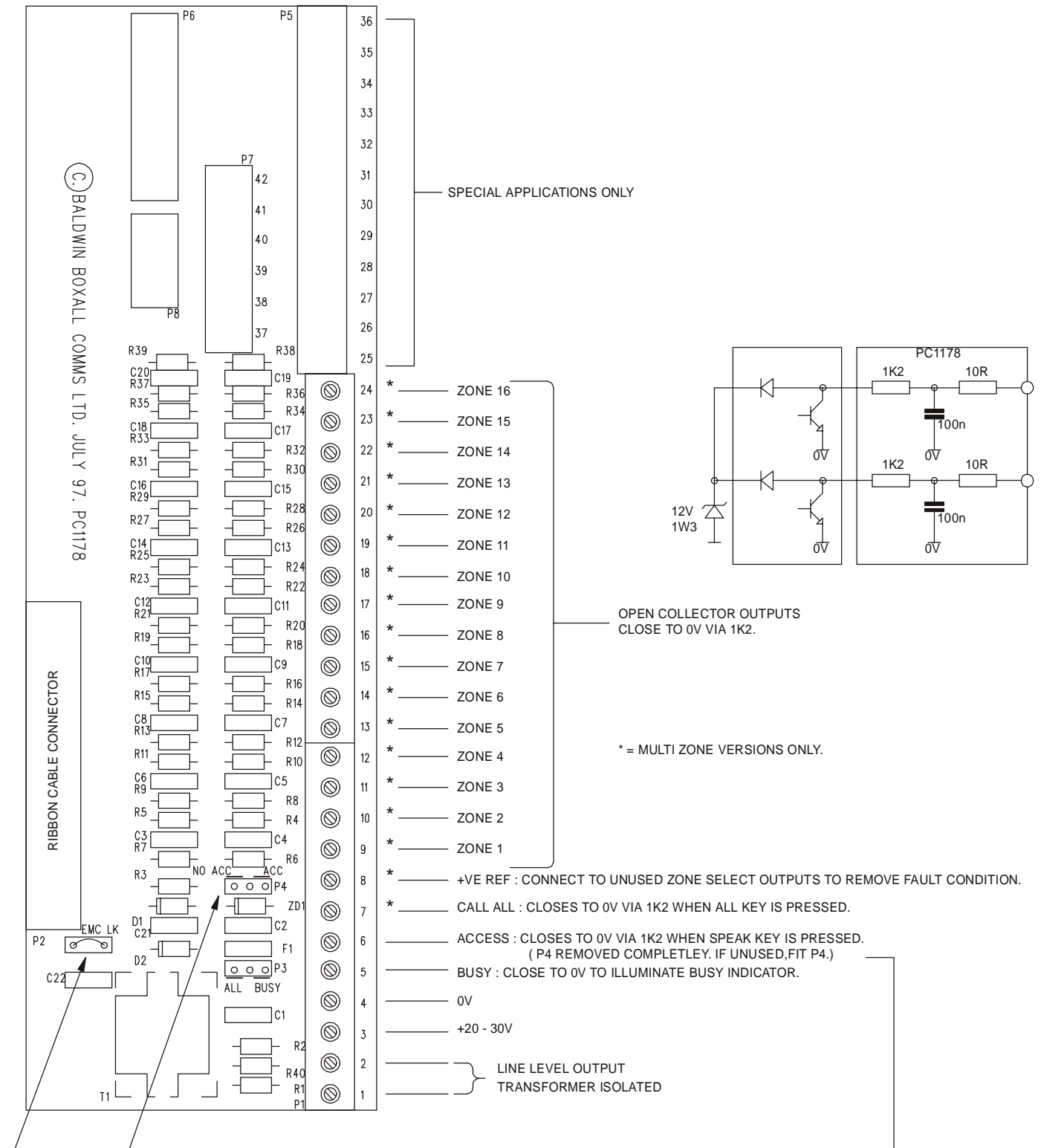
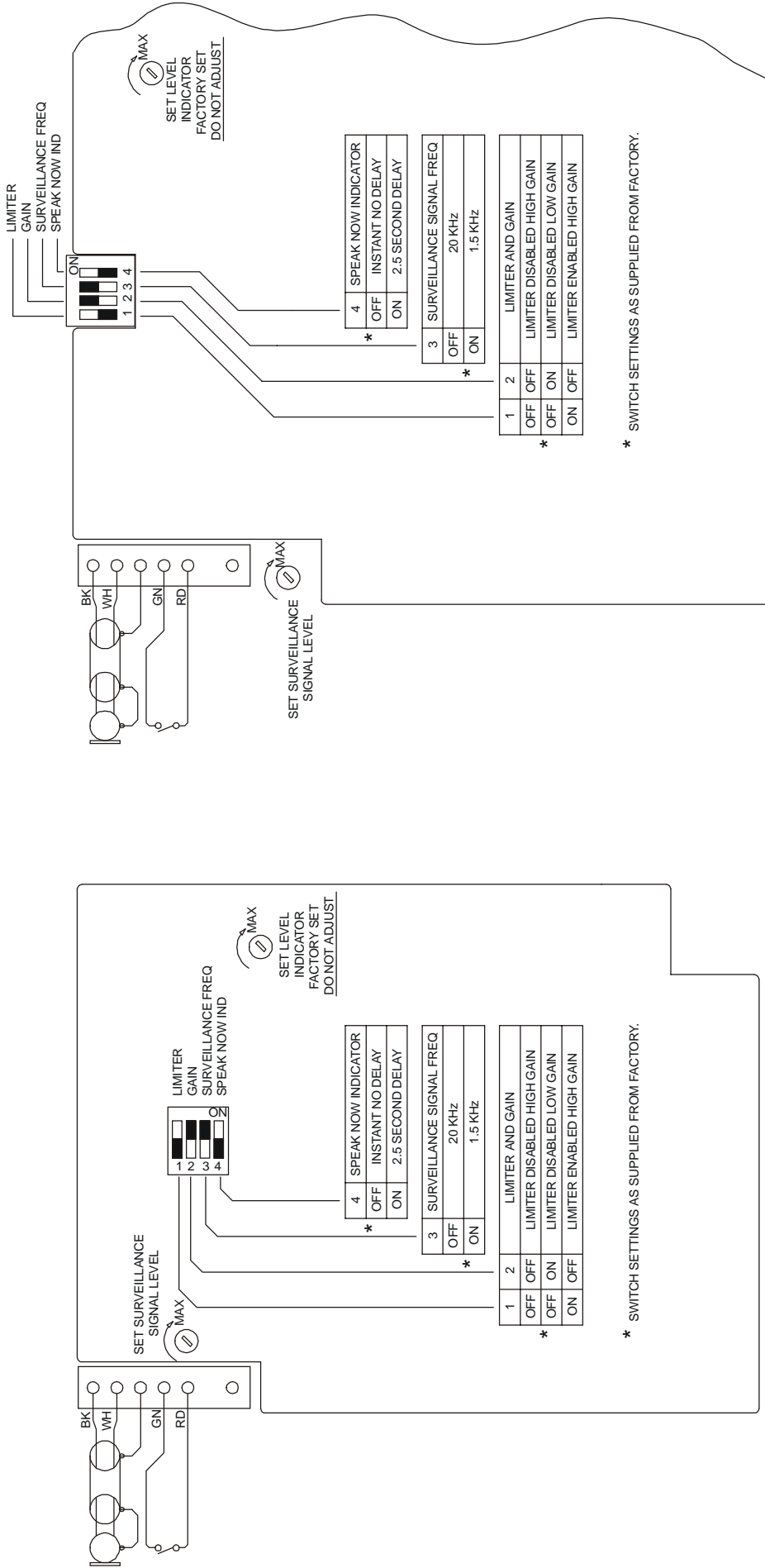


Figure 2 - INTERNAL SELECTORS REAR OF CONTROL MODULE



SINGLE & 4 ZONE VERSION

8 & 16 ZONE VERSION

REMOVAL FROM CASE

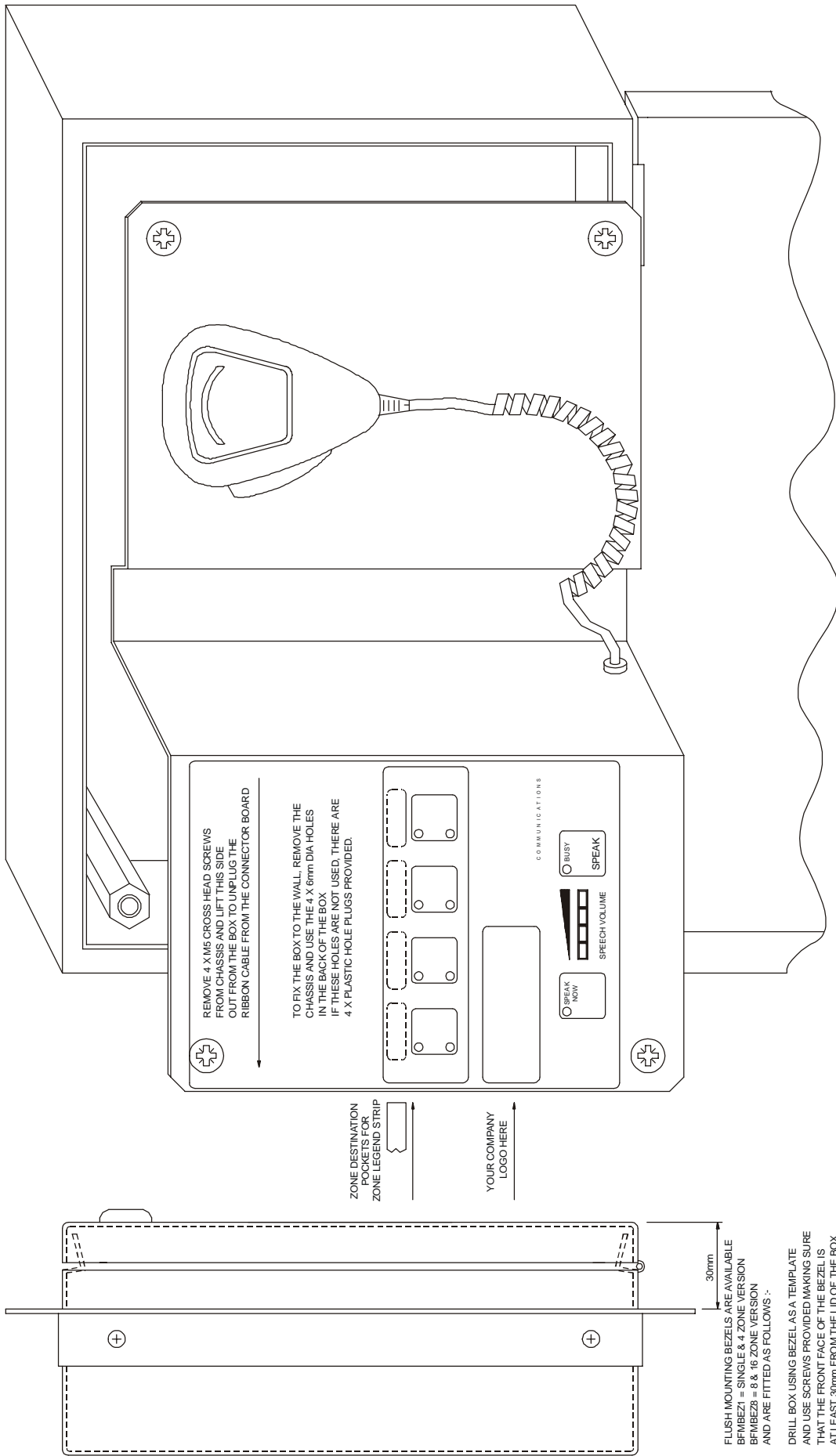


Figure 3 - REMOVAL OF PANEL FROM CASING FITTING THE BEZEL, AND LABELS

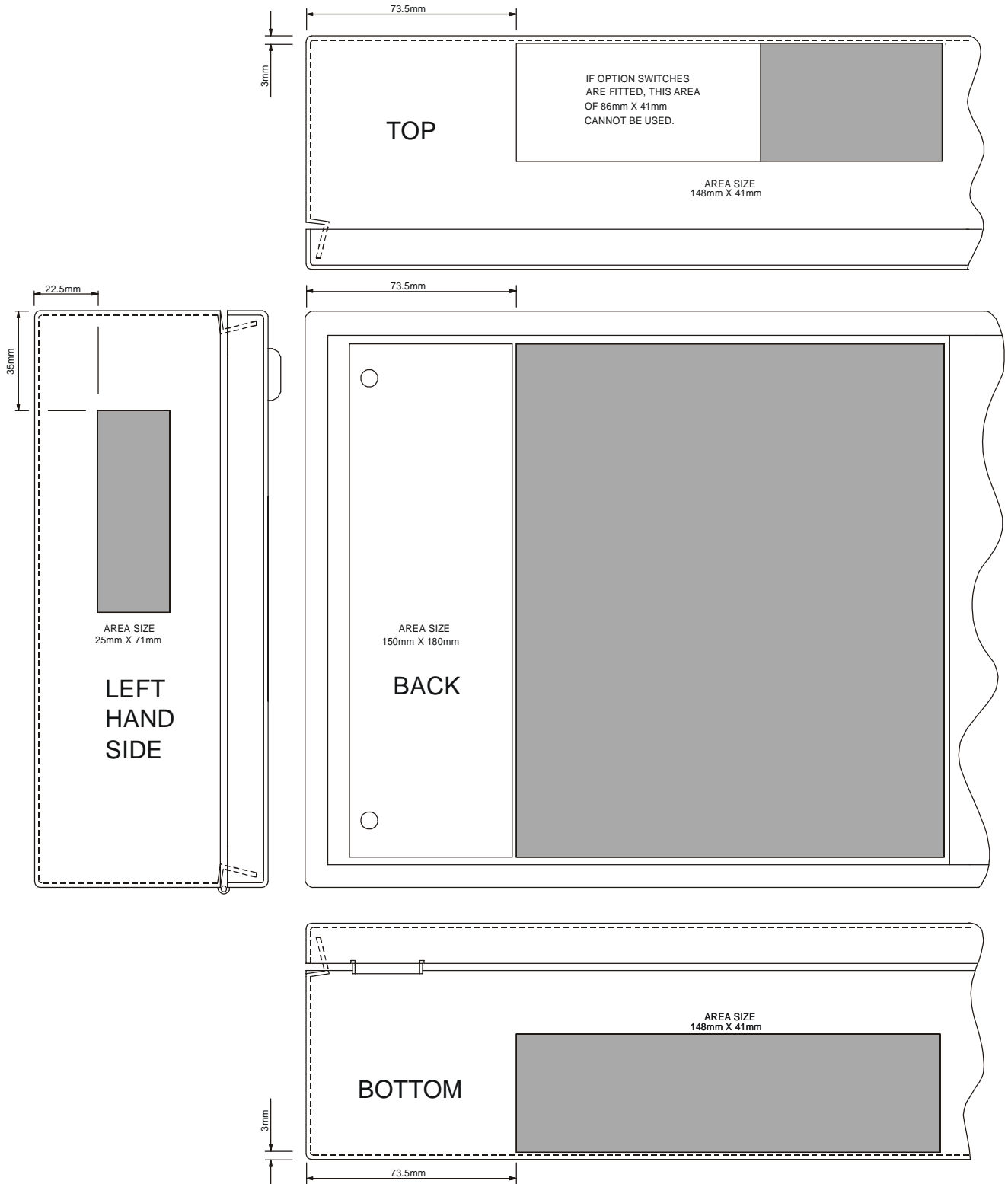


Figure 4 - CABLE ENTRY DETAILS FOR BFM08 & BFM16

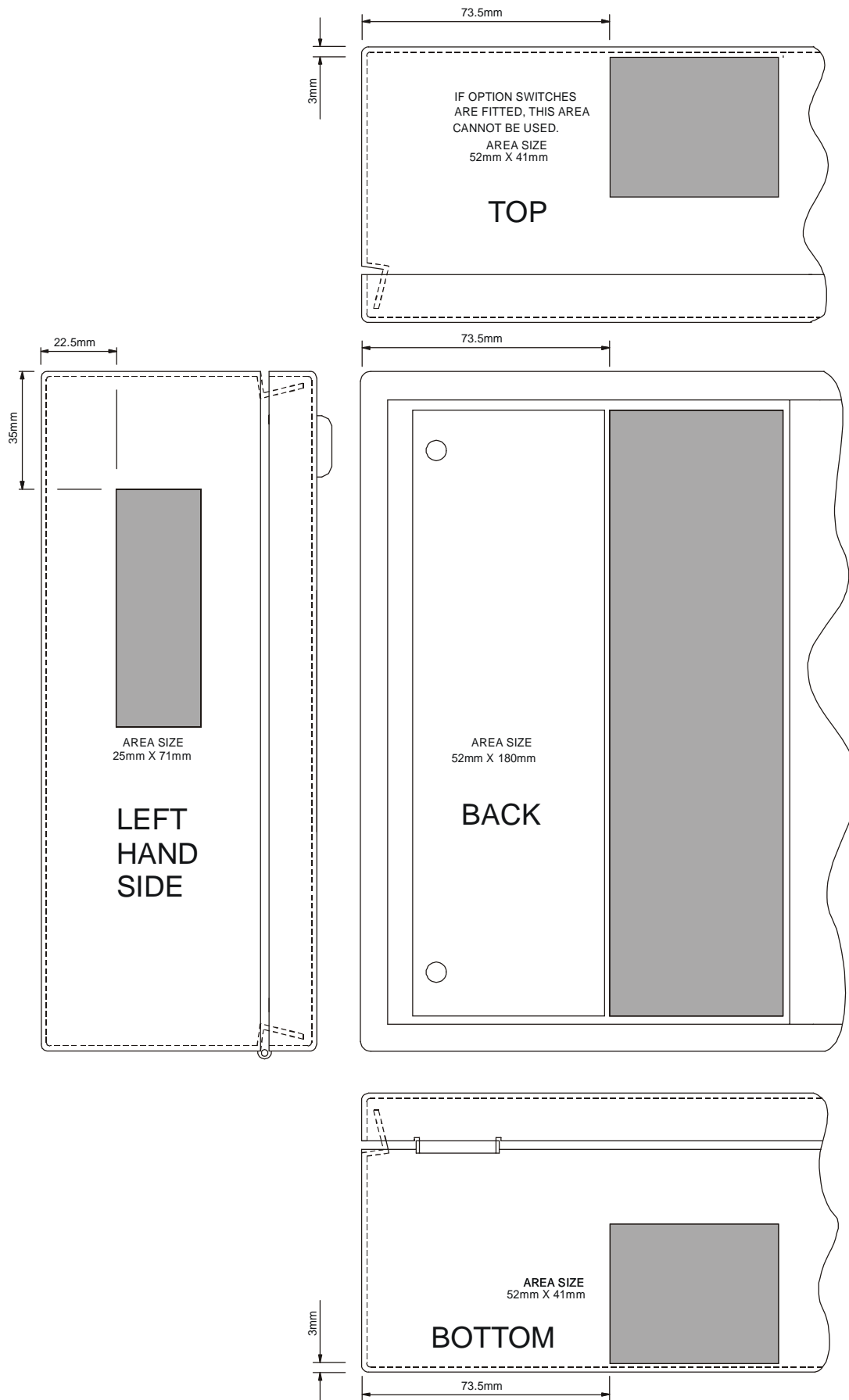


Figure 5 - CABLE ENTRY DETAILS FOR BFM01 & BFM04