

# **Getting Started Guide**

## **MOM – Monitor Operating Module**



**NTP TECHNOLOGY**

A DAN TECHNOLOGIES COMPANY

**DAD**  
DIGITAL AUDIO DENMARK  
By NTP Technology

## IMPORTANT SAFETY INSTRUCTIONS

### READ AND KEEP THESE INSTRUCTIONS



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.



The garbage bin with a cross is intended to alert the user that the product may not be disposed of by regular garbage, but as electronic equipment.

**WARNING** – when using electric products, basic precautions should be followed, including the following:

Read all of the safety and installations instructions and explanation of graphic symbols before using the product.

1. Do not use this apparatus near water.
2. Clean only with dry cloth.
3. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
4. Only use attachments/accessories specified by the manufacturer.
5. Unplug this apparatus during lightning storms or when unused for long periods of time.
6. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

### SERVICE

- Do not attempt to service the product beyond that described in the user maintenance instructions. All other servicing should be referred to qualified service personnel.
- The product should be serviced by qualified service personnel when:
  1. Objects have fallen, or liquid has spilled into the product, or
  2. The product has been exposed to rain, or
  3. The product does not appear to be operating normally or exhibits a marked change in performance, or
  4. The product has been dropped, or the enclosure damaged.

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Doc No. MOM-8002-A-4 rev.1

## General description

Congratulations, and thank you for purchasing the MOM – Monitor Operating Module. The MOM is a versatile remote control for the Pro Mon 3 monitor controller software for the DAD AX32 and DX32R. Multiple MOM's may be used on the same system if multi-user functionality is required. The MOM may also be used in combination with Eucon-based control surfaces such as the S6, Pro Tools Dock and the Pro Tools Control app.

The MOM has 10 user-definable keys in 4 layers. This effectively provides up to 40 user-definable keys by having 10 keys on each layer. It also features an external GPI input for e.g. a footswitch for talkback.

## Before you start

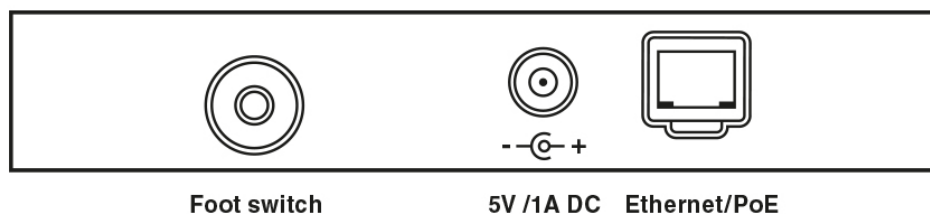
Place the MOM on a hard and dry surface.

Make sure you have installed the DAD configuration and operation software DADman ver. 5.2 or higher on your computer. The DADman software can be downloaded from our website, [www.digitalaudio.dk/support](http://www.digitalaudio.dk/support).

## Connections

The MOM has 3 connections on the back.

- A network port with PoE (Power over Ethernet) with RJ45 connector
- A 5 VDC power input with DC connector
- A GPI (input) for an external switch such as a footswitch with 3,5mm mini jack connector



*Figure 1, Connections on MOM*

## Network port

The network port is used for the control communication. The network port also supports PoE so the MOM can be powered via the network connection if your network switch also supports PoE. In that case it is not necessary to use the 5 VDC power input.

## Power input

If you do not use PoE to power the MOM, you must use the 5 VDC power input with the supplied power adapter. The power adapter comes with a range of interchangeable mains plugs making it suitable for use in most countries.



Note. You can connect both Ethernet with PoE and the DC power at the same time for redundant/back-up power supply operation.



Figure 2, Power adapter kit included with MOM

## GPI Input

The GPI input is a 3.5 mm jack connector. This may be used for connecting an external switch such as for example a footswitch. The functionality of the GPI input is programmed in the DADman software.



Note. MOM automatically detects the foot switch type, being active on or off during power-up and reset.

## Operation

The MOM has 10 user-definable keys, a Layer key and a rotary dial.

The 10 user-definable keys can be programmed for any function in the monitor profile and are therefore not restricted to the functionality that is implied with the labelling on the MOM.

The Layer key allows the user to switch between up to 4 layers of 10 keys thereby effectively providing up to 40 user-definable keys.

The rotary dial is typically used for controlling the speaker level, but may also be configured for adjusting other levels. Around the rotary dial there is a LED scale from -40 dB to +12 dB in steps of 2 dB to indicate which level it is set at.

The LED's can either be red, green or orange. This is used to indicate levels in-between the 2 dB steps.

A red LED indicates that the level is set to the exact value indicated next to the LED, e.g. -10 dB. If the rotary dial is slowly turned e.g. clock-wise to increase the level, the LED changes to green and at the same time the next LED turns orange to indicate a change of 0.5 dB so the level is now -9.5 dB. Continuing to turn the dial will make both LED's turn to orange to indicate the level is now changed 1 dB so it is now -9 dB. Next the LED's will change to orange and green to indicate another 0.5 dB change so the level is -8.5 dB until finally the LED next to -8 dB is red to indicate a level of -8 dB.

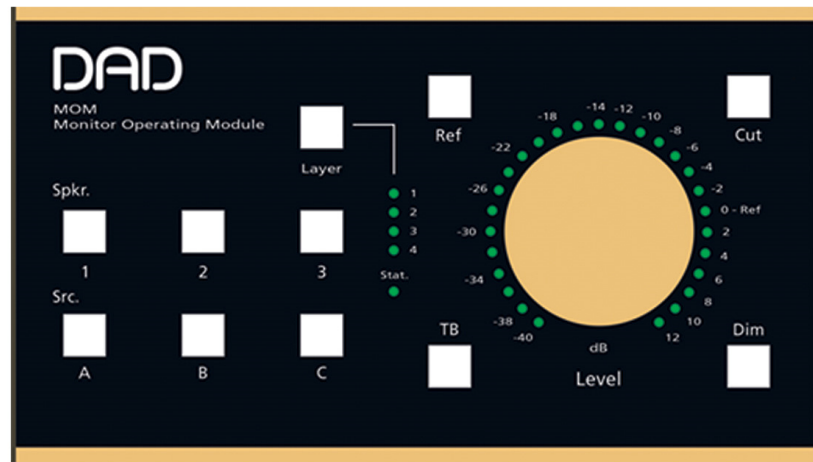


Figure 3, Front view of the MOM



Note. The status LED (Stat.) will flash red when the MOM is unconfigured. Once configured, it will light green.

## Configuration

The MOM is configured with the DADman software ver. 5.2 or higher. The following instructions assume you are already familiar with the DADman software, otherwise please refer to the AX32 User Guide to familiarise yourself with the software.

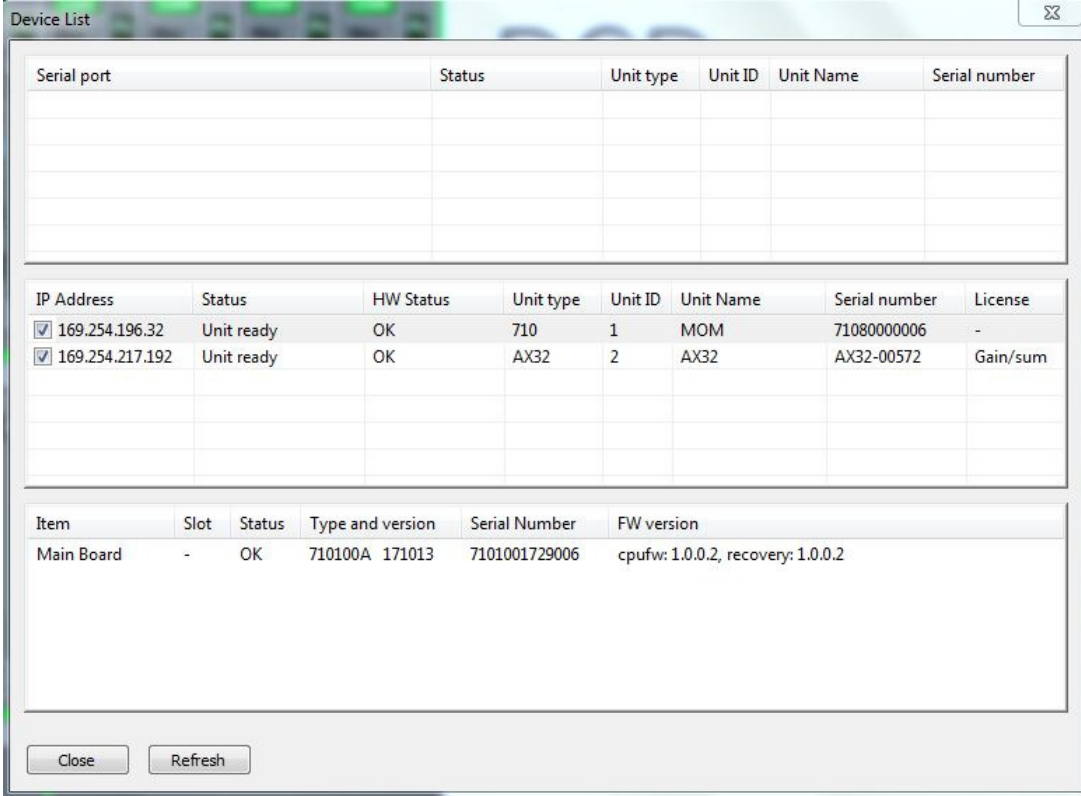
Please follow these steps to configure the MOM.

### Connecting the MOM

Connect the MOM to the network and make sure it is powered via either PoE or the power adapter. The Stat. LED will blink red after approx. 2 sec.

In DADman, go to the Device List. The MOM should be detected automatically by the DADman software, otherwise click on "Refresh".

The MOM is shown as Unit Type 710, as shown on the following screenshot.



Serial port	Status	Unit type	Unit ID	Unit Name	Serial number

IP Address	Status	HW Status	Unit type	Unit ID	Unit Name	Serial number	License
<input checked="" type="checkbox"/> 169.254.196.32	Unit ready	OK	710	1	MOM	71080000006	-
<input checked="" type="checkbox"/> 169.254.217.192	Unit ready	OK	AX32	2	AX32	AX32-00572	Gain/sum

Item	Slot	Status	Type and version	Serial Number	FW version
Main Board	-	OK	710100A 171013	7101001729006	cpufw: 1.0.0.2, recovery: 1.0.0.2

Close Refresh

Figure 4, Screenshot from Device List showing MOM and AX32

Make sure the IP address of the MOM is within a valid range. Select the MOM by checking the box next to it and close the window.

### Adding the MOM to a monitor profile

The next step is either to load an existing monitor profile if you already have one, alternatively create a new monitor profile.

If you have an existing monitor profile then simply load it and go to the Monitor Profile configuration. If you have not already created a monitor profile, you must go to the Monitor Profile configuration and create one. Once you have done that, you should see something like this.

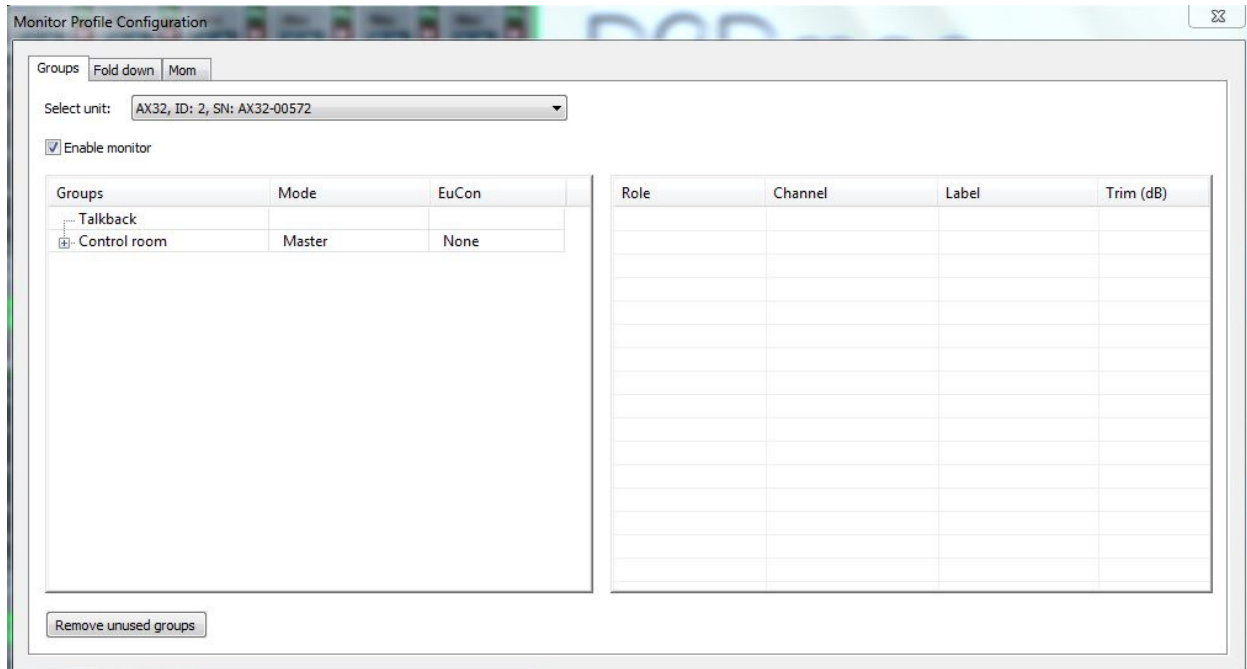


Figure 5, Screenshot from Monitor Profile Configuration

Select the MOM tab which will give you the following picture.

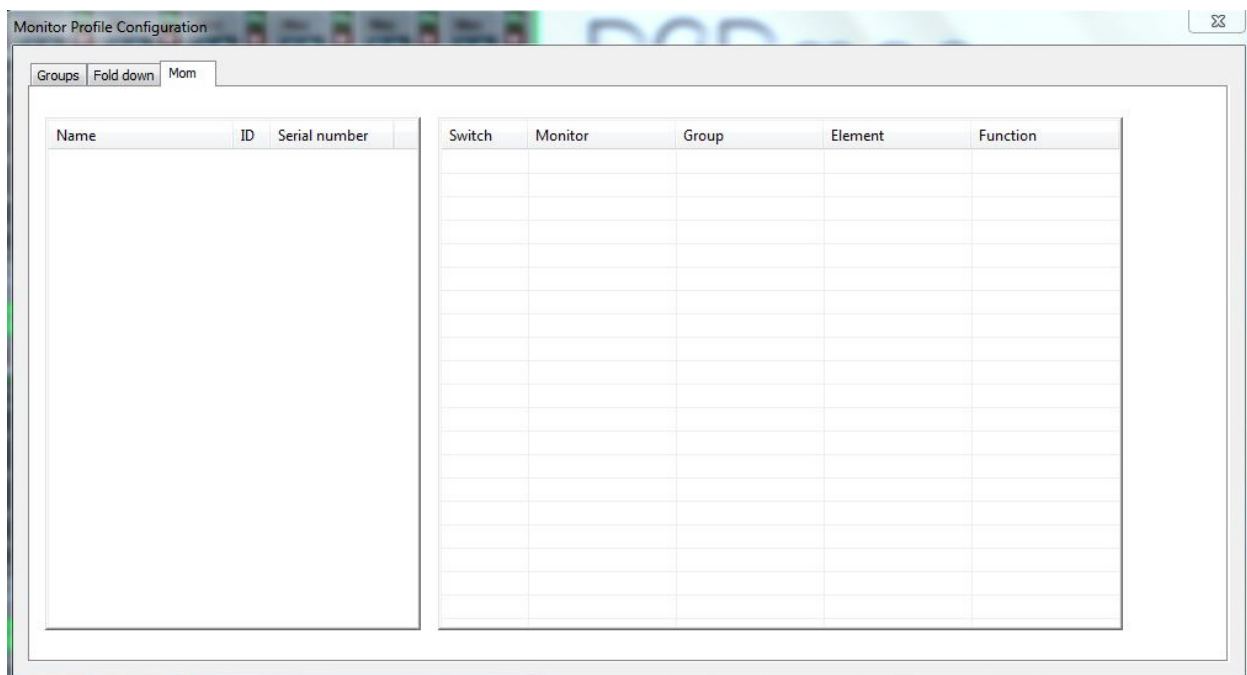


Figure 6, Screenshot from the MOM tab in Monitor Profile Configuration



Right-click (Windows) or CTRL-Click (OSX) in the white area to the left. Select Add new MOM and then select the MOM you want to add.

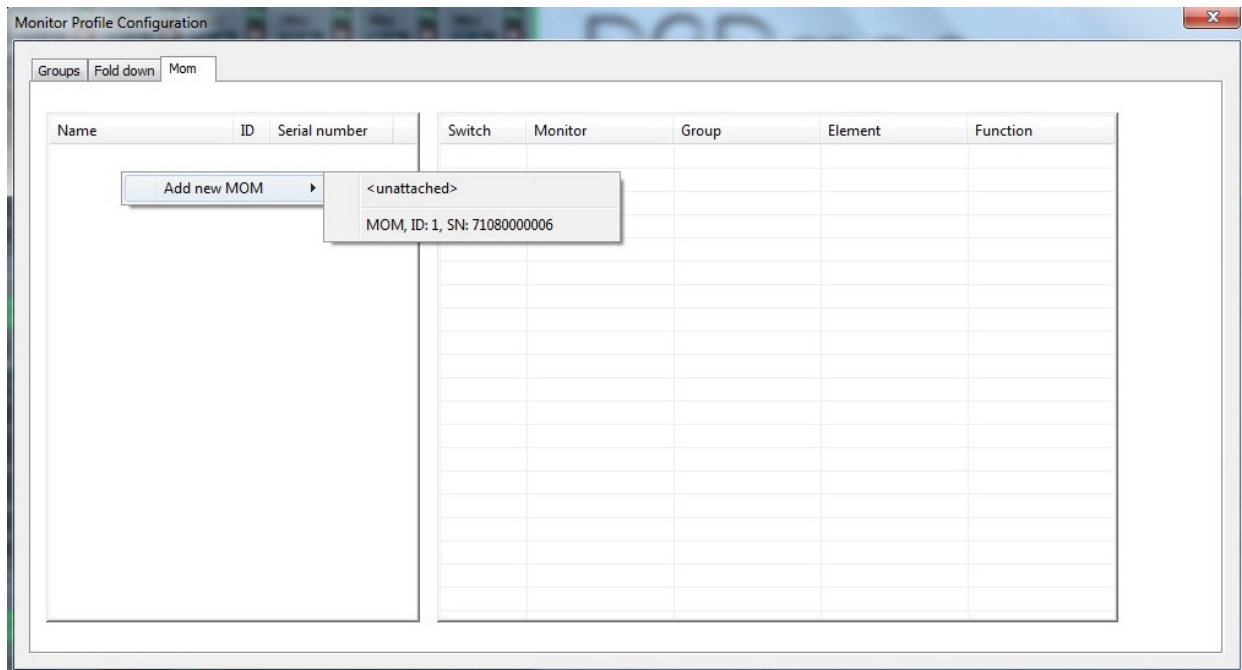


Figure 7, Adding a MOM

The MOM should now be shown in the white area.

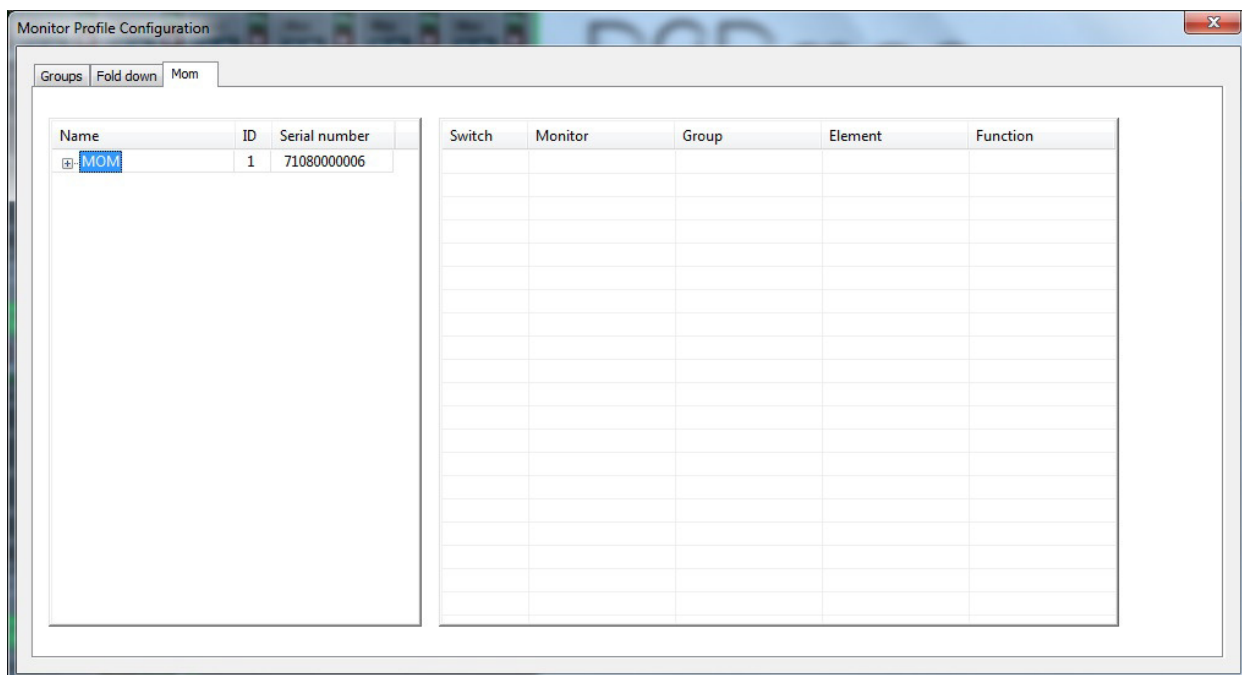


Figure 8, Adding a MOM

## Programming the keys

Clicking on the small + sign next to the MOM will now show the 4 layers of the MOM. Click on one of the layers and you will see a list of all the keys on the MOM.

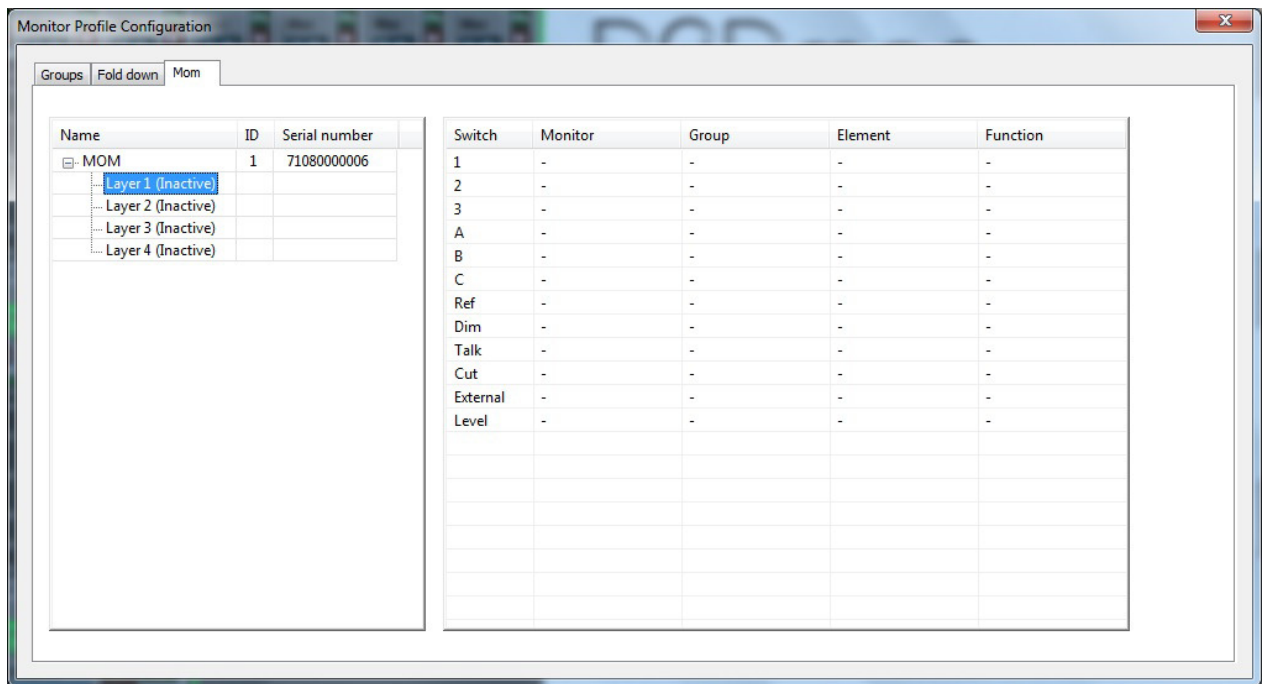


Figure 9, Keys on the MOM

If you right-click on the MOM you will have the following options.

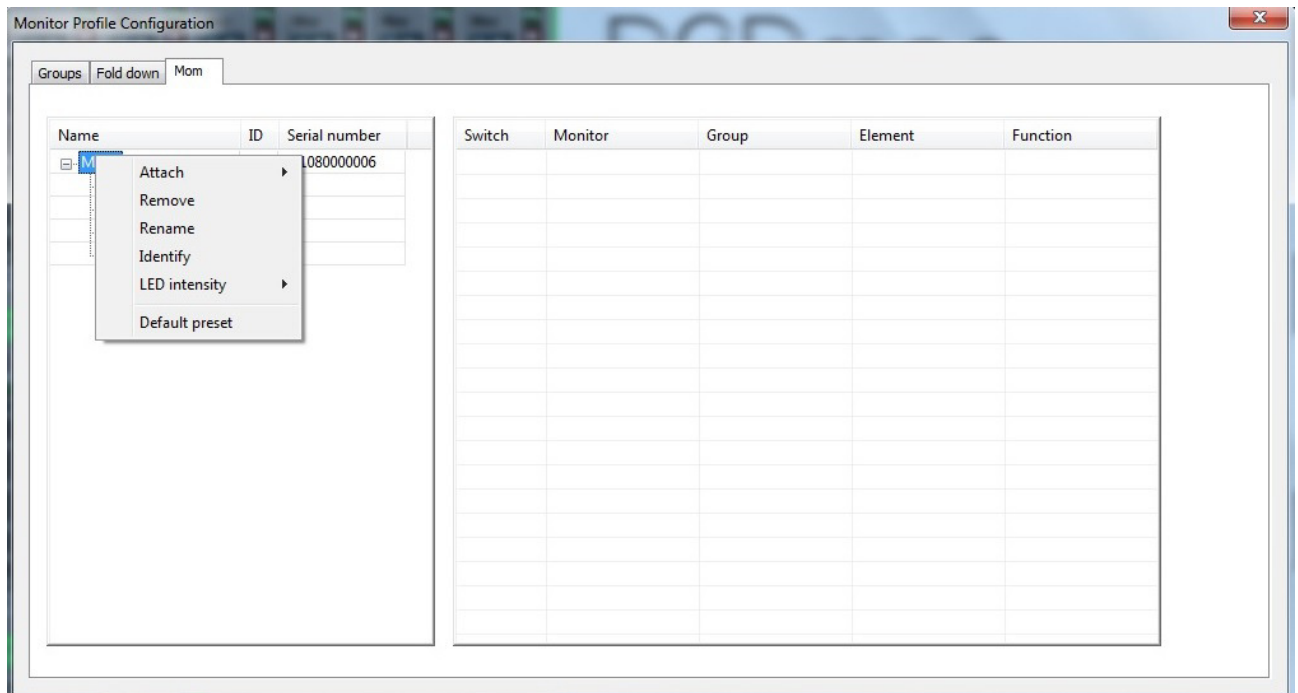


Figure 10, Menu for programming the MOM

The right-click menu has the following options.

**Attach** allows you to add more MOM's.

**Remove** will remove the selected MOM from the configuration.

**Rename** lets you rename the selected MOM for easier identification in the configuration.

**Identify** will make the selected MOM light up all green LED's for 10 sec. This makes it easier for you to identify the MOM's if you have more than one on the same set-up.

**LED Intensity** lets you set the lighting level of the keys and LED's to either Low, Normal or High so it can be adapted to the lighting conditions in the room where the MOM is used.

**Default Preset** will make the DADman software configure the functionality of the MOM based the monitor profile. This is done on a "best effort" basis so it may not be perfect, but it can be a good starting point. It is always possible to modify the configuration afterwards.

Assigning/re-assigning a key is done by simply right-clicking/CTRL-clicking on the key. This will bring up a list of choices, including the monitor groups you have programme in the monitor profile. Pointing on a monitor group will bring up choices from that monitor group. Select the functionality you want and then proceed to the next key.

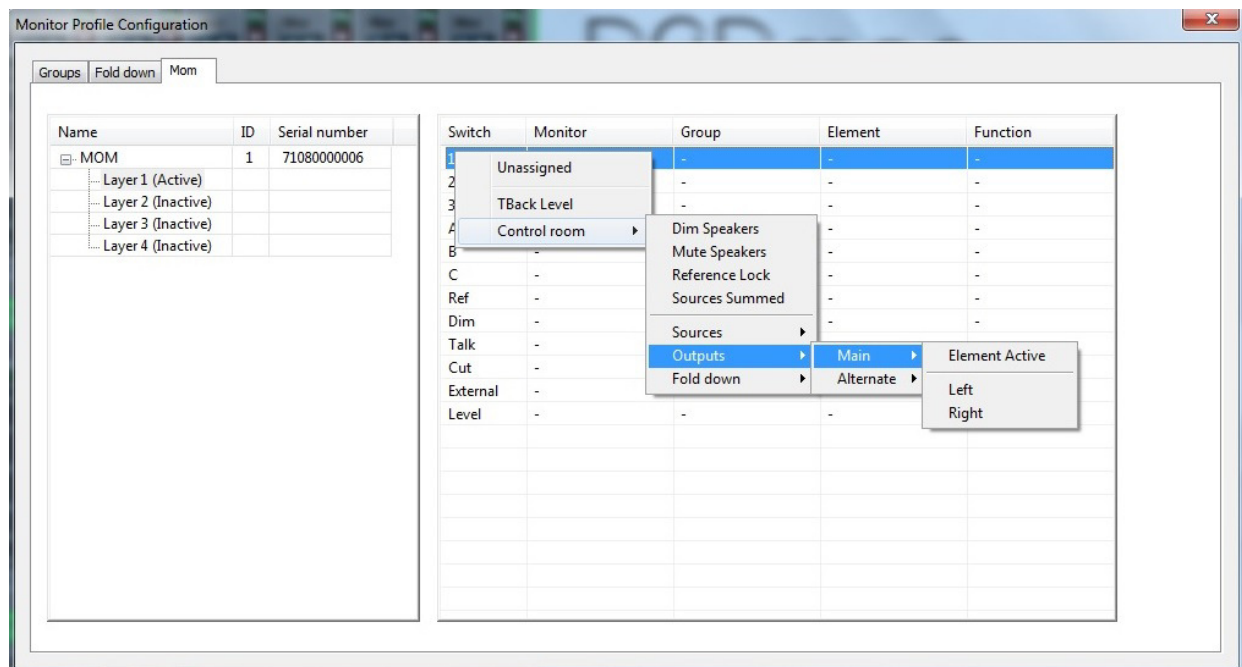


Figure 11, Assigning a functionality to a key

Finally, it is necessary to activate the layer(s) you want to use. Right-click/CTRL-click on a layer and select **Element Active** to activate the layer.



Note. **Element Active** enables selection of the whole set of speakers on and off. **Left** or **Right** enables that the selection is an on/off function for an individual speaker in the set.

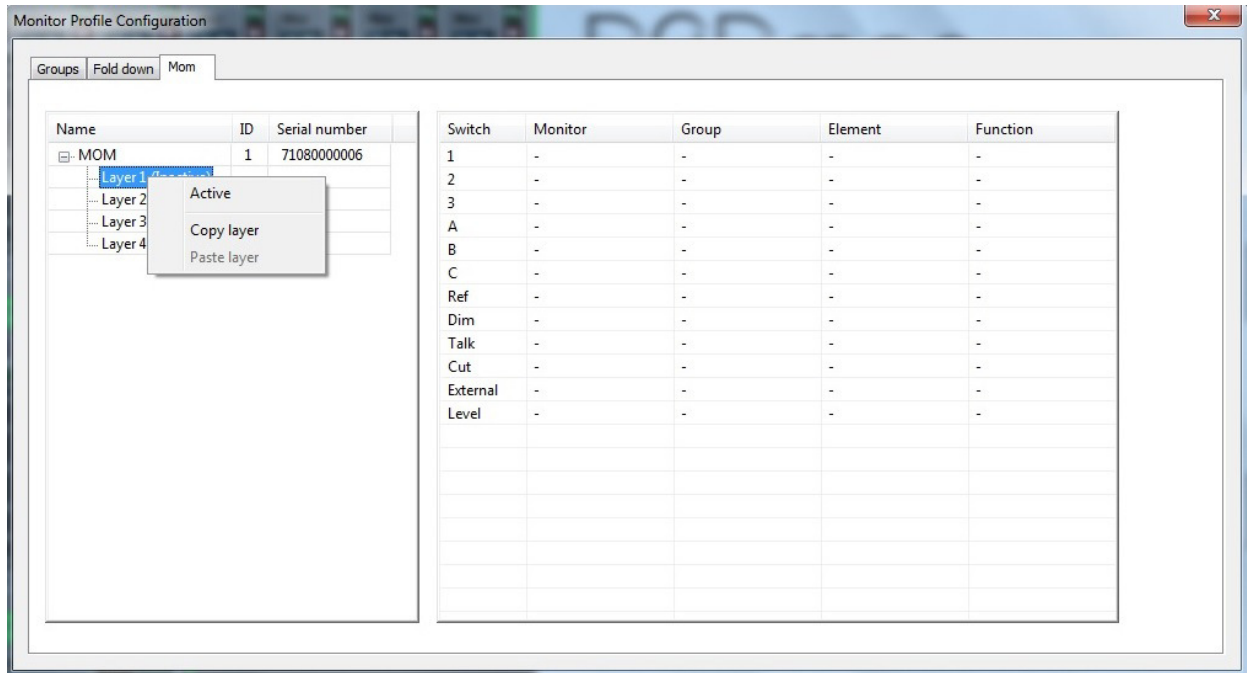


Figure 12, Activating a layer in the MOM

The same menu also provides a copy/paste function where you can copy the programming of a layer to another layer, and even to a layer in a different MOM. This makes it extremely fast to configure multiple MOM's with the same configuration.

## Specifications

### Network interface specifications

Interface	1000BASE-T, RJ45 connector, 4-pair connection
PoE	According to IEEE 802-3af, class 0
Foot switch	3.5 mm mini jack
DC power input	5.5mm/2.1mm DC connector. Tip is +5V

### Electrical specifications

Power consumption	5 W max.
Input voltage	PoE or 5 DVC

### Mechanical specifications

Dimensions (W x D x H)	17.2 cm x 11 cm x 5 cm 6.8" x 4.3" x 2"
Weight	1 kg / 2.2 lbs.

### Environmental specifications

Operating Temperature	0 – 45 °C / 32 - 113°F
Humidity	20 to 85%, non-condensing
EMC compliance	EN 55103-1, part 1: emission EN 55103-2, part 2: Immunity FCC 47 CFR part 15 (B): emission