

MDA4-1000M

LCD GUI Quick User Guide

v1.0

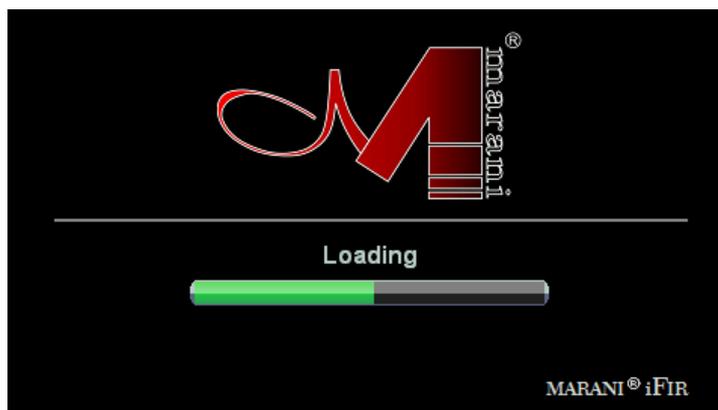
Preliminary

The MDA4-1000M amplifier is equipped with an high resolution 480x272 pixel Touchscreen LCD, allowing to control the main settings of the system through a GUI.

In addition to the touch gestures, the GUI can be fully controlled by the encoder/button on the amplifier front panel.

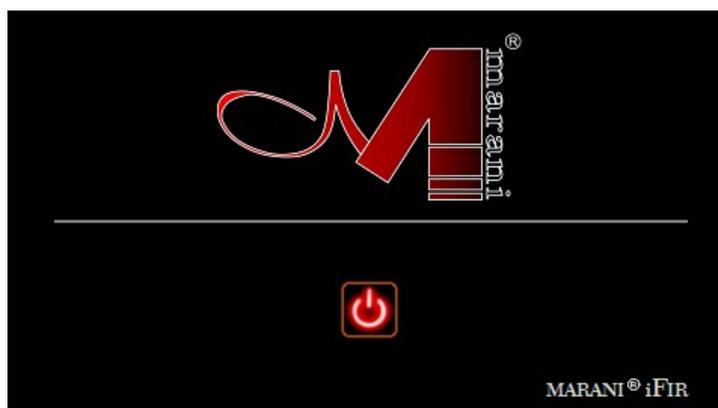
System Startup Page

The image below shows the LCD view during the amplifier startup, through which the whole system is initialized loading the last DSP settings; the screen shows the booting status in a green progress bar.



Standby Page

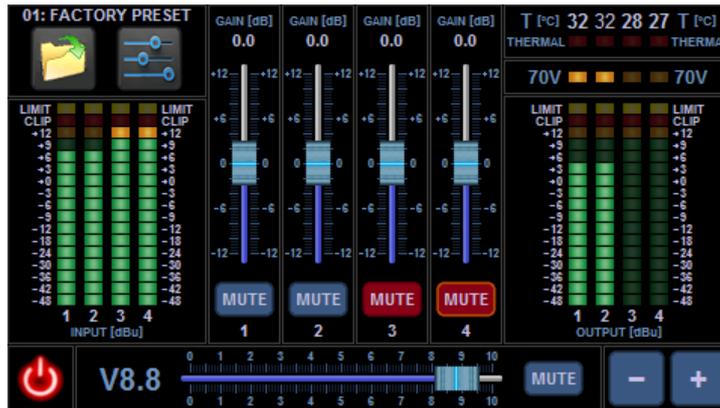
After the boot process completion, the “Standby” page is shown.



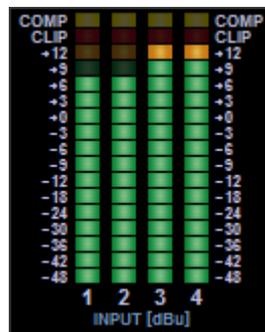
Pressing the “Power” button the amplifier enters in normal mode and the main view is shown in the screen.

Main Page

The image below shows the LCD main view, that allows monitoring the amplifier status (in/out levels, temperature, thermal protection, 70V constant voltage enable, etc) as well as controlling the input channels gain/mute, the output volume/mute and the amplifier standby.



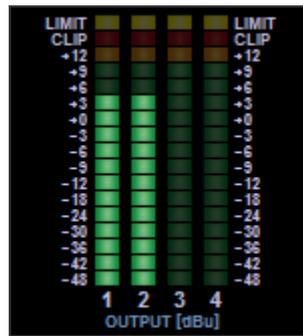
Input VuMeter Frame



The input VuMeter frame shows the signal level of each channel before the input gain/mute (PFL) from -48dBu up to 14dBu, the overflow/clip limiter activity and the input compressor activity:

- [-48 ... +9] green led: when it is ON (light green) the signal is in the range [X,X+2] dBu.
- [+12] orange led: when it is ON (light orange) the signal is in the range [+12,+14] dBu.
- [CLIP] red led: when it is ON (light red) the overflow/clip limiter is active.
- [COMP] yellow led: when it is ON (light yellow) the input compressor is active.

Output VuMeter Frame



The output VuMeter frame shows the signal level of each channel after the output volume/mute (AFL) from -48dBu up to 14dBu, the overflow/clip limiter activity and the output limiter activity:

- [-48 ... +9] green led: when it is ON (light green) the signal is in the range [X,X+2] dBu.
- [+12] orange led: when it is ON (light orange) the signal is in the range [+12,+14] dBu.
- [CLIP] red led: when it is ON (light red) the overflow/clip limiter is active.
- [LIMIT] yellow led: when it is ON (light yellow) the output peak limiter is active.

Status Frame



The status frame shows the power stage temperature of each amplifier channel, the thermal protection status and the 70V constant voltage limiter enable:

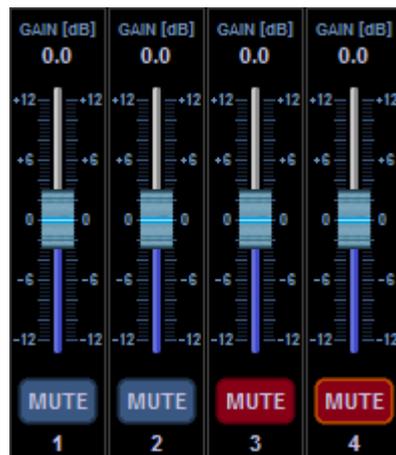
- $T [^{\circ}C]$: temperature of each channel in $^{\circ}C$
- *THERMAL* red led: when it is ON (light red) the channel enters in mute/protected mode (@ $T > 85^{\circ}C$)
- 70V orange led: when it is ON (light orange) the constant voltage limiter is enabled.

Power Frame/Button



Pressing the Power button the amplifier enter in standby mode and the “Standby” page is shown in the screen.

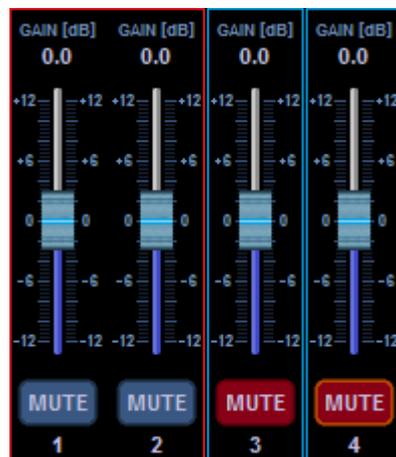
Input Gain Frame



The input gain frame allows to control the gain and mute of each input channel:

- *MUTE button*: it controls the input channel mute (blu: unmuted; red: muted)
- *GAIN slider*: it allows changing the input gain from -12dB to +12dB with 0.1dB step.

The input gain sliders and mute buttons can be linked in mono or stereo mode as described in the “Channel Link” section. When two or more input channels is linked the control frames change s shown below (CH1-2 stereo link; CH3-4 mono link)



Output Volume Frame



The output volume frame allows to control the output volume and mute of all output channels.

- *MUTE button*: when the button is red all the amplifier channels are muted.

- *VOLUME slider*: it allows changing the output volume of the amplifier from -80dB (V0.0) to 0dB (V10) with a variable step:

- V0.0 – V1.0: -80dB - -60dB step 2dB
- V1.0 – V4.0: -60dB - -30dB step 1dB
- V4.0 – V10: -30dB - 0dB step 0.5dB

NAV Frame



The NAV frame shows the on top the actual device preset and allows to open secondary control pages.

- *OPEN button*: pressing this button, the “Load Preset” view is shown.
- *SETTINGS button*: pressing this button, the “Channel Source” view is shown.

Load Preset Page

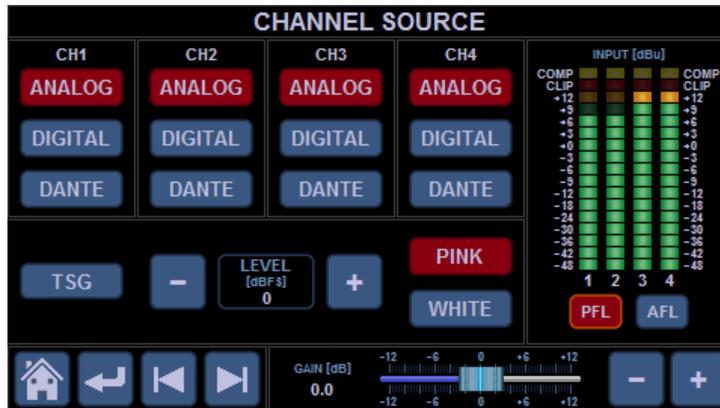
The image below shows the LCD Preset view, that allows to reload a device preset. The MDA4-1000M has up to 50 presets.



- *Preset buttons*: they allow to select the preset to be loaded
- *Load button*: when this button is pressed the selected preset is loaded. The green bar in the bottom shows the loading progress.
- *Home button*: it allows to go back to the main view
- *Left/Right arrow buttons*: they allow to scroll the preset set (1-10, 11-20, 21-30, 31-40 and 41-50)

Channel Source Page

The image below shows the LCD Channel Source view, that allows selecting the source type of each channel and controlling the input gain of the amplifier.



Channel Source Frame



The Channel Source frame allows to select the source type of each input channel (ANALOG, DIGITAL or DANTE), or to enable the internal test signal generator (TSG). The current source selection is shown with red buttons.

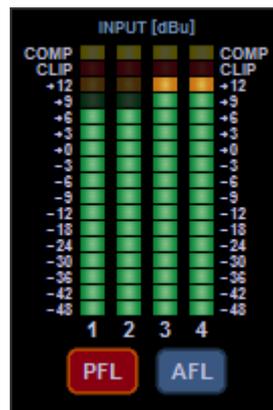
When the TSG is enabled all the input channels are fed with “Pink” or “White Noise” and the channel source buttons are disabled.

The TSG signal level can be changed through the LEVEL up/down from -40dBFS to 0dBFS with 1dB step.

The channel source buttons can be linked in mono or stereo mode as described in the “Channel Link” section. When two or more input channels is linked the control frames change as shown below (CH1-2 stereo link; CH3-4 mono link)



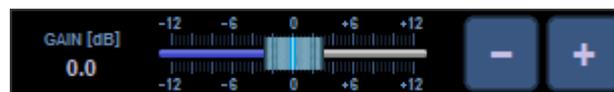
Input VuMeter Frame



The input VuMeter frame shows the signal level of each channel before (PFL) or after (AFL) the input gain/mute from -48dBu up to 14dBu, the overflow/clip limiter activity and the input compressor activity:

- [-48 ... +9] green led: when it is ON (light green) the signal is in the range [X,X+2] dBu.
- [+12] orange led: when it is ON (light orange) the signal is in the range [+12,+14] dBu.
- [CLIP] red led: when it is ON (light red) the overflow/clip limiter is active.
- [COMP] yellow led: when it is ON (light yellow) the input compressor is active.
- PFL/AFL buttons: they allow to select VuMeter PFL or AFL mode

Input Gain Frame



The input gain frame allow changing the gain of all input channels from -12dB up to +12dB with 0.1dB step.

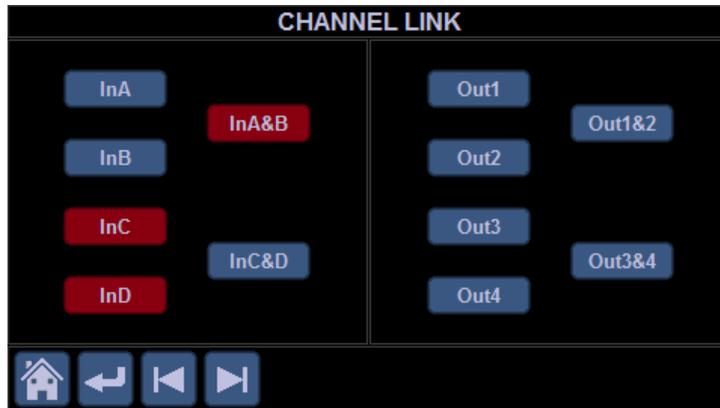
NAV Frame



- Home button: it allows to go back to the main view
- Left/Right arrow buttons: they allow to show the other settings views (by now, only the “Channel Link” view is available)
- Return arrow button: it allows to show the up layer page (by now, the main view)

Channel Link Page

The image below shows the LCD Channel Link view, that allows linking input or output channels in mono or stereo mode.



- InX *buttons*: enable/disable the mono link on input channel X
- InX1&X2 *buttons*: enable/disable the stereo link between X1 and X2 input channels
- OutY *buttons*: enable/disable the mono link on output channel Y
- InY1&Y2 *buttons*: enable/disable the stereo link between Y1 and Y2 output channels
- *Home button*: it allows to go back to the main view
- *Left/Right arrow buttons*: they allow to show the other settings views (by now, only the “Channel Source” view is available)
- *Return arrow button*: it allows to show the up layer page (by now, the main view)

GUI Button Control

Normal State



In “normal” state the button is enabled and the corresponding function is OFF (e.g. unmuted). The button can be controlled through the touch screen only. Moving the front panel encoder, the button state changes in “highlighted”.

Highlighted State



In “highlighted” state the button can be controlled through both the touch screen and the front panel button.

Selected State



In “selected” state the button is enabled and the corresponding function is ON (e.g. muted). The button can be controlled through the touch screen only. Moving the front panel encoder, the button state changes in “highlighted selected”.

Highlighted Selected State



In “highlighted selected ” state the button can controlled through both the touch screen and the front panel button. Moving the front panel encoder, the button state changes in “selected”.

Disabled State



In “disabled state” the button function is not available.

GUI Slider Control

Normal State



In “normal” state the slider can be controlled through the touch screen only (the Plus/Minus buttons are disabled). Touching the slider track, the state changes in “highlighted”. Touching the slider thumb, the state changes in “selected”. Touching and dragging the thumb, the slider value changes.

Highlighted State



In “highlighted” state the slider can be controlled through both the touch screen and the encoder button. Touching the slider thumb or pressing the encoder button, the state changes in “selected”. Touching and dragging the thumb. the slider value changes.

If no action is taken for 15 seconds the slider go back to normal state.

Selected State



In “selected” state the slider can be controlled through both the touch screen and the front panel encoder. Touching and dragging the thumb or moving the encoder or pressing the Plus/Minus buttons, the slider value changes. Pressing the encoder button, the slider go back to highlighted state.

If no action is taken for 10 seconds the slider go back to highlighted state to avoid unwanted value changes.