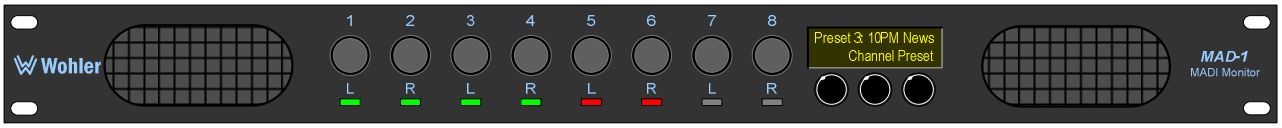
MAD-1
MADI Monitor

Engineering Specification
Revision 1
Preliminary



Introduction

The Presto MAD-1 MADI Monitor can be connected in series in a 64-channel MADI stream to audibly monitor up to 8 channels. Operation is simple and intuitive.

I. Features

a. Coax MADI Input.
b. Reclocked MADI Output.
c. Balanced analog outputs.
d. Channel presence indicators.
e. 8 presets.
f. 122 x 32 pixel yellow monochrome OLED display.
g. 1RU shallow depth chassis fits anywhere, even in crowded production trucks.
h. Internal power supply with IEC connector.

II. Controls and Indicators

The front panel controls and indicators are described by the following table:

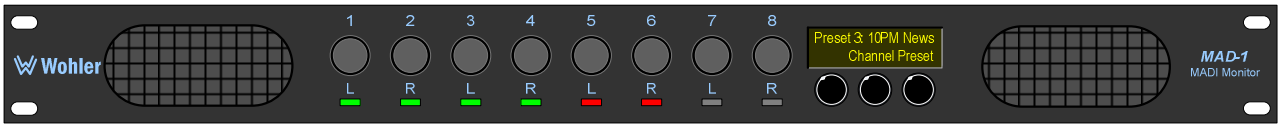
LED / Button	Function	Active Color	Inactive Color	Other
8 Rotary Encoders	Per channel level adjust / mute / change preset / setup			
8 LEDs	Channel status indicator		Off	No audio on MADI channel
		Green		Audio present on MADI channel
		Red		Audio muted
	Setup	Yellow		Flashing when the associated encoder is to be used in conjunction with the display for

				setup in a menu
Button 1 - 3	Function select / setup			These are soft keys whose function is defined by the display above them
Character Display	Status / setup	Yellow		Lit in all modes when power is on

The back panel…

III. Enclosure

Presto will be housed in a 1RU steel shallow rack chassis consisting of 3 pieces: bottom-sides-back, front panel, top cover. The dimensions will be 1.75 x 19 x 4.75 (HxWxD inches) (depth measured from rack mounting to BNC connector protrusion at rear). Side vents may be provided for cooling. The front panel will appear as follows:



The back panel will appear as follows:

An external power supply brick will be provided, which will connect to the locking power connector on the back panel. The brick will contain an IEC power cord connector for use with 100 to 240 VAC +/-10% 50/60 Hz power with country-specific power cords. Only a North American power cord will be supplied with the product, although any IEC cord may be substituted in the field.

Eight 3G/HD/SD SDI video source inputs will be provided to the left and right of the two 3G/HD/SD SDI selected video outputs. The outputs are in the center to optimize the internal 3G video paths.

The chassis will be painted black, masked to allow the chassis to form a Faraday box. Internal overspray is acceptable, except for the masked areas. Silkscreening of front and back panel legends will be with white paint.

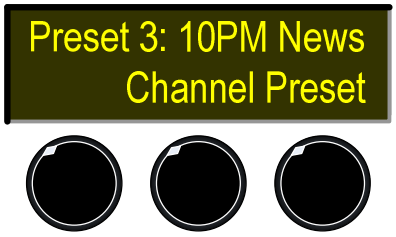
IV. Operation and Setup

Operation and setup of the MAD-1 is performed as follows:

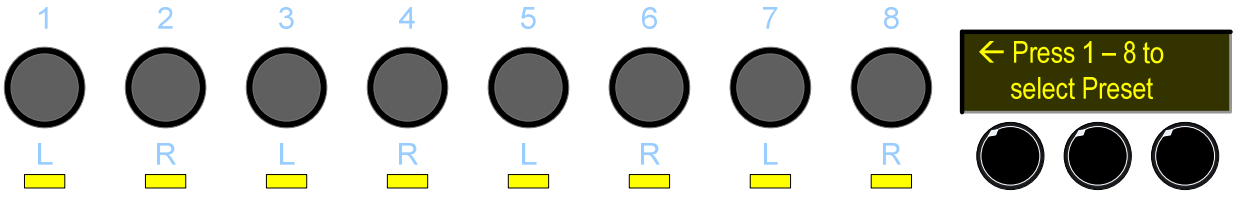
Level Adjust: Rotary encoders 1 – 8 are used to adjust the speaker volume of each of the 8 selected channels, respectively. As each encoder is rotated, the display shows the channel number and name as well as the overall level in a bar graph for at least 3 seconds:

Channel Mute: Pressing rotary encoders 1 – 8 will mute each of the 8 selected channels, respectively. When muted, the LED beneath each rotary encoder will light red. This is an alternate action control, so when pressed a second time, the channels returns to the volume setting it had when it was first muted. When each encoder is pressed, the display shows the channel number and name and indicates the channel is muted:

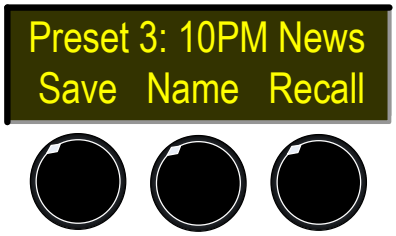
Save, Name, or Recall a Preset: Normally the display will indicate the current preset and label the soft keys beneath it:



To make changes to the preset, press the **Preset** soft key. The LED beneath each rotary encoder will blink yellow to indicate that they are now to be used in conjunction with the display menu and the display will indicate that one of the rotary encoders must be pressed:



After the encoder corresponding to the selected preset is pressed, the LED for the selected preset will light steady yellow and the other LEDs will turn off. The display menu will ask for the desired action, **Save**, **Name**, or **Recall**:



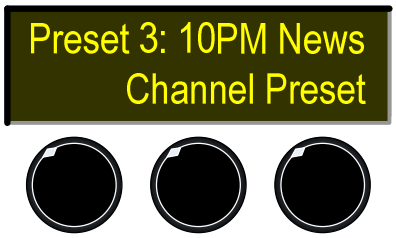
To recall the selected preset, press the **Recall** soft key. The preset is recalled and the display returns to normal, showing the number and name of the recalled preset. The 8 LEDs return to their normal function of displaying audio presence.

To save the current channel configuration, into the selected preset, press the **Save** soft key. The preset is saved and the display returns to normal, showing the number and name of the current preset. The 8 LEDs return to their normal function of displaying audio presence.

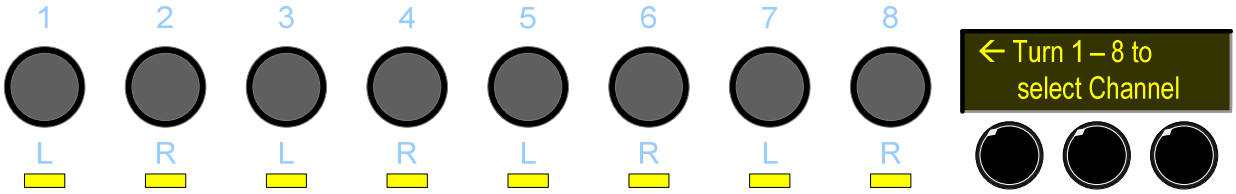
To name the selected preset, press the **Name** soft key. The text entry menu appears, indicating that the 8th rotary encoder has been temporarily repurposed to select text. The LED beneath the 8th encoder will blink yellow at the same rate as the blinking text position cursor on the display. This is intended to indicate that it is now to be used in conjunction with the display menu:

Turn the encoder to select the character indicated by the cursor. Press the encoder to select the character and move the cursor to the next position. Use the **Back** soft key to correct any errors. Up to 10 characters may be entered. When finished, press the **Done** soft key. The front panel display will return to normal.

Mic, Name, or Select a Channel: Normally the display will indicate the current preset and label the soft keys beneath it:

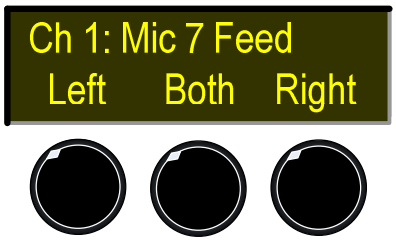


To make changes to a channel, press the **Channel** soft key. The LED beneath each rotary encoder will blink yellow to indicate that they are now to be used in conjunction with the display menu and the display will indicate that one of the rotary encoders must be turned:



As soon as an encoder is turned or pressed, its LED will light steady yellow to indicate that it alone is now to be used in conjunction with the display menu and the other LEDs will turn red. Audio from the other channels will be temporarily muted and only the audio from the indicated channel will be heard in both speakers as the encoder is rotated. If it is necessary to adjust the volume of the channel at this time, hold the yellow-indicated encoder in and turn to adjust the volume. The display menu will now indicate which channel is being selected as the encoder is turned. It will also ask for the desired action, **Mix**, **Name**, or **Select**:

To mix the selected channel position, press the **Mix** soft key. The mix menu appears:



Press the **Left** soft key to hear this channel position on the left speaker. Press **Both** to hear this channel position on both speakers. Press the **Right** soft key to hear this channel position on the right speaker. The front panel display will return to normal.

To select the current channel, into the channel position, press the **Select** soft key. The preset is saved and the display and audio monitoring returns to normal, showing the number and name of the current preset. If the selected MADI channel was an odd numbered channel, it will be heard on the left speaker channel. If it was an even numbered channel, it will be heard on the right channel. The 8 LEDs return to their normal function of displaying audio presence.

To name the selected channel, press the **Name** soft key. The text entry menu appears, indicating that the 8th rotary encoder has been temporarily repurposed to select text. The LED beneath the 8th encoder will blink yellow at the same rate as the blinking text position cursor on the display. This is intended to indicate that it is now to be used in conjunction with the display menu:

Turn the encoder to select the character indicated by the cursor. Press the encoder to select the character and move the cursor to the next position. Use the **Back** soft key to correct any errors. Up to 10 characters may be entered. When finished, press the **Done** soft key. The front panel display will return to normal.

V. Specifications

- Input: MADI BNC connector
  - Sample Rate: 48 kHz, 64 channels
  - Channel Doubling: No
  - Varispeed: No
  - Demultiplexing: 8 individual channels
- Output: Reclocked MADI BNC connector
- Output: Balanced XLR for left channel
  - Same as mix for left speaker
  - Level: +4 dBu, not affected by volume controls

- Output: Balanced XLR for right channel
  - Same as mix for right speaker
  - Level: +4 dBu, not affected by volume controls
- Output: Balanced XLR for mono mix
  - Same as mix for left and right speakers
  - Level: +4 dBu, not affected by volume controls
- Acoustic Frequency Response: 300 kX to 10 kHz (+/- 6 dB)
- Acoustic Distortion: < 2% 300 Hz to 10 kHz
- Acoustic Output: 90 dB SPL @ 2 feet
- Power: IEC connector, 100 – 240 VAC +/- 10%, 50/60 Hz