



The Audio Mixer from Switzerland

User Manual

Ab Seriennummer MI0210131

Dear Customer,

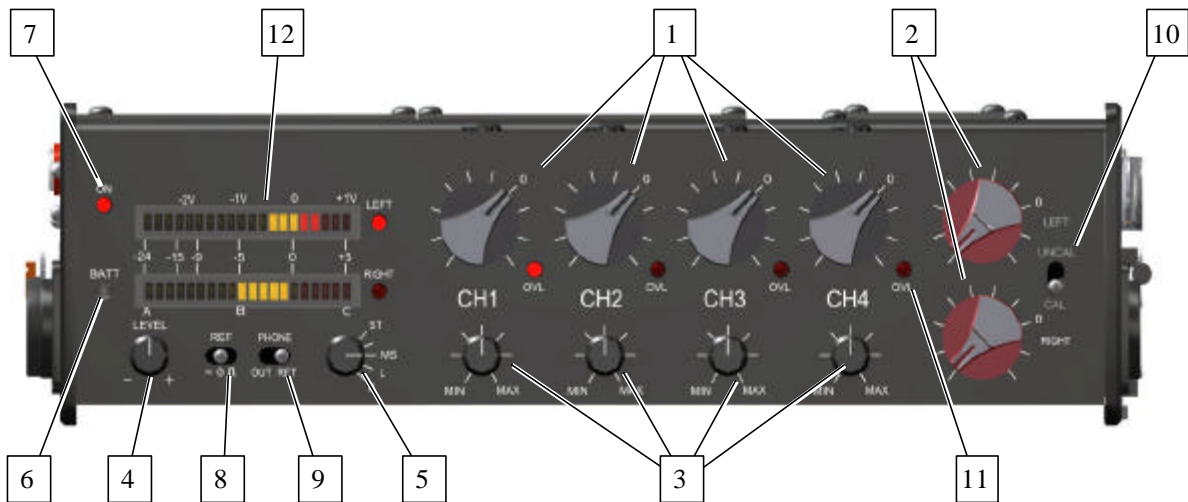
Let us not waste time with long introduction. The mixer allows you to work with it, without having to study this manual.

The following points need to be respected:

- The two cover plates over the HF-Docking Bays must always be fixed on to the mixer before turning it on. They protect the golden contacts underneath and avoid short circuits. These HF Docking Bays are prepared for easy installation of the adapters for HF transmitters and receivers should they be bought at a later date.
- When opening the cover plate of the mixer, make sure nothing drops into the mixer. Damage to the circuitry or mechanics, caused by such objects may not be repaired under guarantee.
- Modifications of the mixer, be it mechanically or electronically shall only be executed by authorised distributors or the manufacturer. Every intervention, executed by non-authorised people or companies may cancel all guarantee.

Well, if you've got the time.....the short description of the mixer starts on the following page. Tests, realised with different people, have shown that the eight pages can be read before fatigue has a chance to overcome you.

Front panel



1. 4 Control knobs for channel - level

Switches on the control-panel allow to link electronically channel 1 and 2 as well as channel 3 and 4. This allows a one-knob control of two channels.

2. 2 Control knobs (red) for the output - level

Both output channels can be linked for one – knob control by a switch on the control-panel. It is possible to bypass these controls by selecting "CAL" on the switch aside the knobs for a calibrated output at +6dBu.

3. 4 Gain - control knobs for microphone and line input

When Setting the gain control it is important to observe the overload indicators. Increase the gain until the LED lights up, then reduce it till the LED turns out. Hoe much you have to reduce the gain depends on the level of the signal you will have to amplify. Be aware that a distortion on the input amplification can not be corrected by the output-limiter.

4. „LEVEL“

Level control for the headphone

5. Monitoring switch

Select Stereo, Mono, Left, Right or MS (for the headphone out put only)

6. „BATT“

Push-button for battery-level-control. While pressing the button, the upper row of LED indicates the charging status of the battery. With fully charged battery all LEDs illuminate. Every diode less signifies a drop of 0,2V battery tension. The 0 on the scale above the display corresponds to nominal battery tension providing the setting of the mixer has been done correctly. (See page 10)

When using a V-mount (or similar) adapter for lock-on batteries with information about remaining capacity, the mixer can use this information for its display. (e.g. IDX Endura)

7. „ON“

On/Off indicator

8. „REF“

Reference-tone switch with three positions

Left position (fix) = continuous tone of 1 kHz

Right position (momentary) = 1 kHz tone as long as maintained in position

Middle position = Off

An internal Dip-Switch allows to select between different ballistics and display modes.
(See pages 8 and 10).

9. OUT / RET

Switch for return monitoring. An internal jumper allows to select between two different display-modes:

- Whether the outgoing or the return signal is monitored, the display always shows the outgoing signal.
- The display follows the monitoring-switch. In that case, the modulation of the return signal will be displayed in return-mode.

The standard setting on delivery is always on the outgoing signal unless otherwise specified by the customer.

10. UNCAL CAL

Selector for calibrated output level (bypasses the master potentiometer; see point 2)

CAL = + 6dB (corresponds to position „0“ of the master potentiometers)

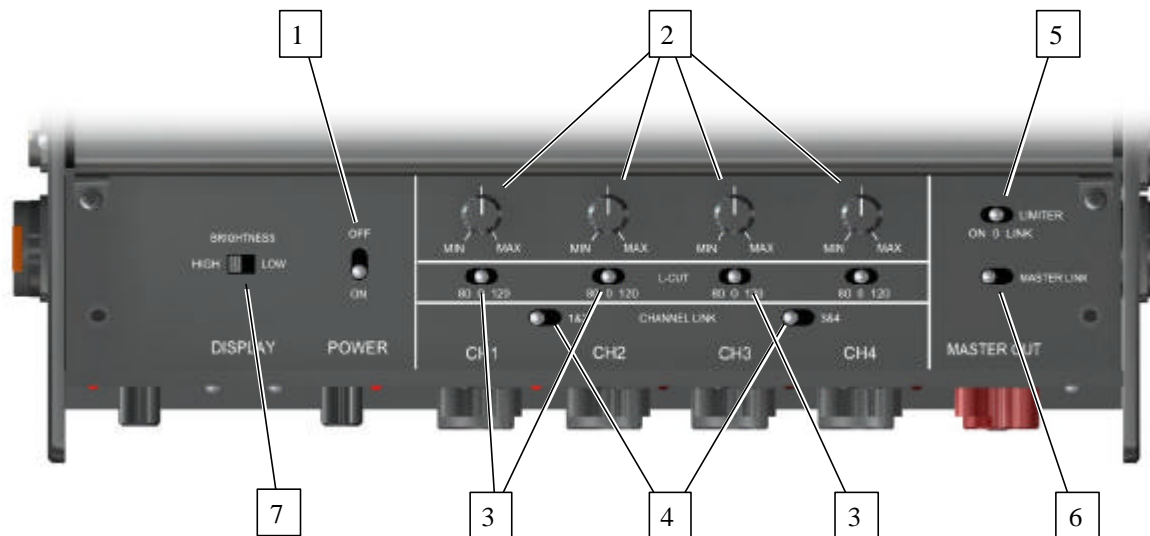
11. „OVL“

Indicator for overloading the microphone or line input (1 LED per channel). The LED lights up at about -12 dB before distortion.

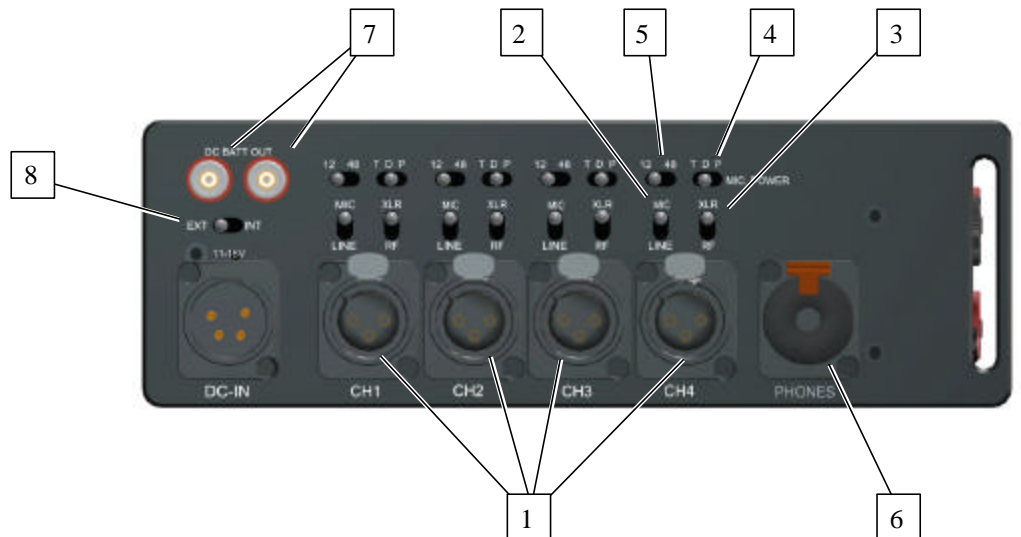
12. Display

20 LED cover the range between - 24 dB and +5 dB. Between -9 and +5 dB the step for each LED is 1 dB. The intensity of the LEDs brightness can be dimmed by setting the switch "Brightness" on the control panel.

Kontroll-Pannel



1. **POWER**
On/Off-switch
2. **PAN**
Panorama potentiometer for each channel
3. **L- CUT**
Low-cut filter 80 Hz or 120Hz, 12 dB/Octave
4. **LINK**
Switch to gang channels 1&2 resp. 3&4
5. **LIMITER**
Selector for Limiter „ON“ channel separated, „0“ off, „LINK“ channel-linked
6. **MASTER LINK**
Switch to gang master outputs
7. **BRIGHTNESS**
Switch to change intensity of the displays brightness.

Input panel (left hand side)

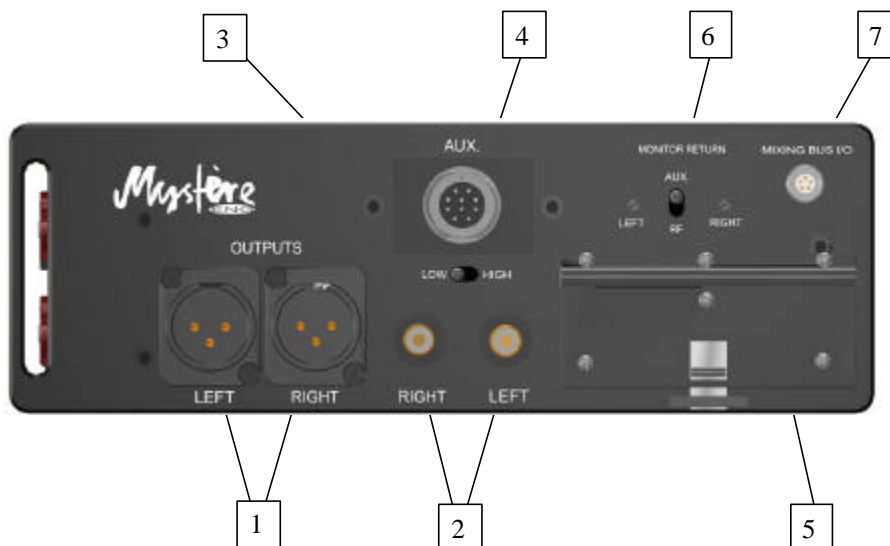
1. **CH1 - CH4**
Microphone/Line input (XLR, female with gold plated contacts)
2. **MIC / LINE**
Selector Line or Microphone input. The line input is an attenuated microphone input (PAD = 26 dB). This allows to use microphones with high level.
The inputs are transformer balanced.
3. **XLR / HF**
With this switch you select the source where the input signal is coming from:
XLR=> Input via cable on the XLR connector
cuts the receivers internal connection
HF => Input via receiver on internal connection.
Cuts the connection from XLR to gain amplifier.

T D P**Choice of microphone: Tonader 12V, Phantom, Dynamic**

4. **12 / 48**
Selector microphone power supply 12V or 48V
5. **PHONES**
Headphone output (Jack 1/4")
6. **DC OUT**
Two additional power-outlets allowing to supply external accessories. Transmitter, Receiver or else.

7. **EXT / INT****Input for external power supply** (11–18V)Pinning: 1&2 ⇒ GND
3&4 ⇒ +

This input is protected by a DC-converter, which lowers the voltage by 1,4 V. Therefore, external batteries, used to power the mixer, need to be of minimum 13,2 V nominal tension. (max. 18 V) for adequate life. Minimum external voltage of 11 V needed to power the unit.

Output-panel (righthand side)1. **OUTPUTS LEFT/RIGHT**

Audio outputs L/R (Master) on (XLR male) +6 dBu

2. **LEFT / RIGHT**

Unbalanced low level outputs L/R on RCA connectors ; level 0 or –40 d

3. **LOW / HIGH**

Selector for level on RCA output LOW –40dBu, HIGH 0 dBu

4. AUX

9-pin D-SUB-(or HiRose) connector with additional stereo output, return input and power outlet (Battery tension). Unless otherwise desired by the client , the standard delivery is with 9-pin D-SUB connector.

Buchsen- Belegung D-Sub:

1 Out right high
 2 Free
 3 Out left low
 4 Return left
 5 Return right
 6 Out right low
 7 Out left high
 8 AGND
 9 Battery tension

HiRose 10-polig:

1 Out left high
 2 Out left low
 3 Out right high
 4 Out right low
 5 Return left
 6 - - -
 7 Return right
 8 - - -
 9 + 10 AGND

HiRose 12-polig:

1 Out left high
 2 Out left low
 3 AGND
 4 Out right high
 5 Out right low
 6 AGND
 7 Return left high
 8 Return left low
 9 AGND
 10 Return right high
 11 Return left low
 12 AGND

5. Slide-in opening for NP1 Battery

Not installed on models for the NDR.

More about battery control on page 10**6. Level adjustment on headphone for return signalKontroll**

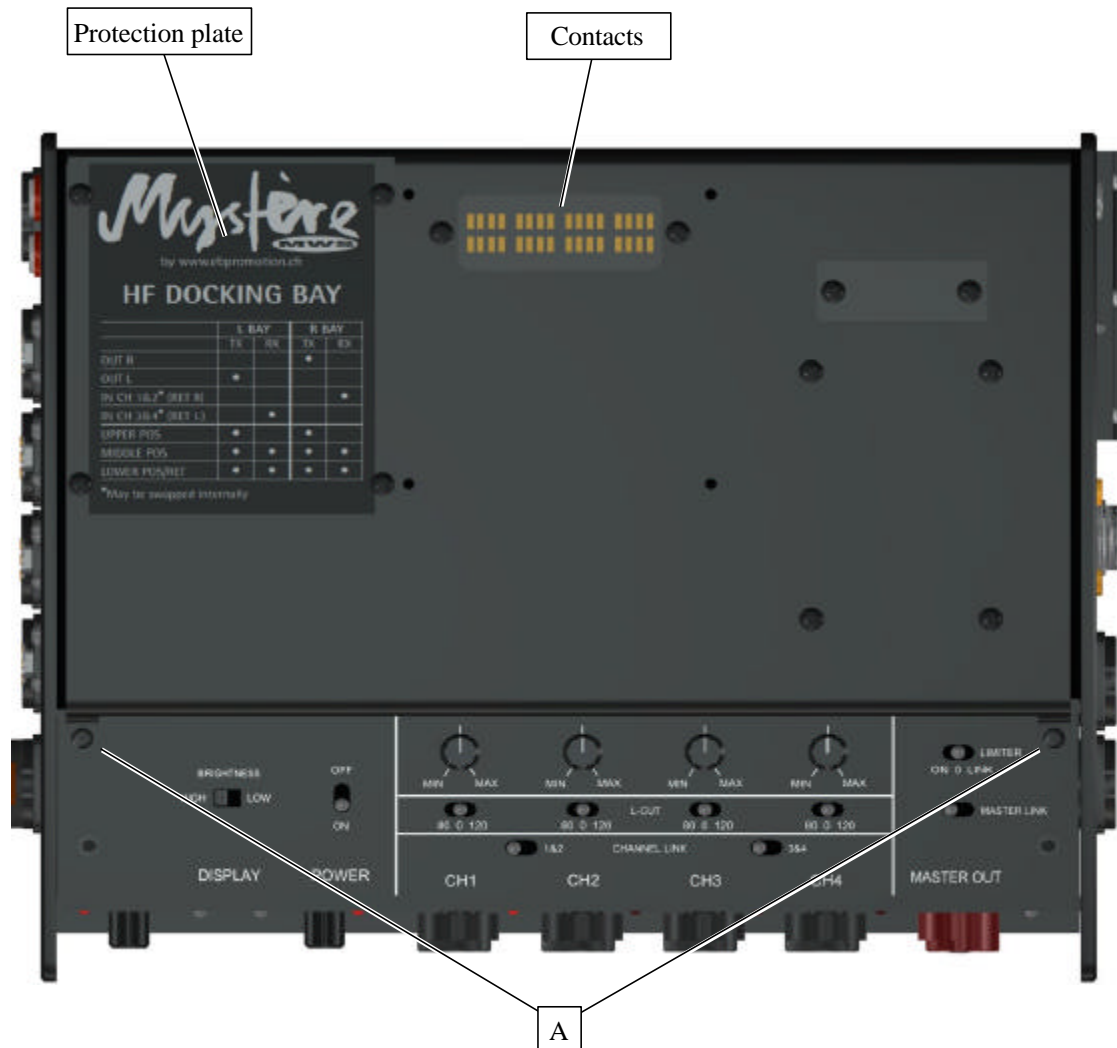
These trimmers allow to level adjust the return signal to the level of the outgoing signal.

7. Mixing-Bus Out/In

Allows to cascade two Mystère. The mixed signal is injected as a group into the second mixers bus. Each mixer can be designed as Master or Group mixer.

Cover – HF-Docking Bays

The cover of Mystère MWS provides all connections, necessary to mount up to 4 receivers and 2 transmitters. With the specially for this application designed adapters the adapters are connected "wireless" for the audio signal and the power supply of the receivers and transmitters. The gold plated contacts are protected by two plates which should not be taken for other reason than to mount the adapters. These plates must be used to mou



nt the adapters.

The cover is secured by two screws. Directly underneath the cover you will find the main-board on which the DIP switches and jumpers for personal set-up changes are available (ballistics of the display, level of the reference tone, etc). Equally all necessary test points for checking the mixer are on this board.

Reference - tone

The reference tone can be set for three different levels on the Dip-switches S3 and S4 on the main board (see page 11). By changing a jumper on the board of the display, two different reference-tone systems can be chosen:

- **Adjustable reference-tone.** With this system, the level of the reference tone can be adjusted by the master potentiometers. For this reason, two LEDs light up in the display. One indicates the level for which the tone is set (three are possible) and one to control the fine tuning when adjusting. When in reference mode, the step between two LEDs is 0,2 db, which allows the adjustment with highest precision. ± 0 is when the LED on position 0 on the display is lit up.
- **Calibrated refernce-tone.** In that mode the reference tone is fix and can not be adjusted by the master potentiometers. The left channel is identifiable by a short (2 milliseconds) interruption of the signal in about two seconds interval.

The display

Two ballistics can be set over the DIP-switch S1. For applications in digital surrounding, we recommend the use of the fast ballistic of 1ms attack time. This eliminates the need of having to create an artificial headroom by low-level mixing. The factory setting is 1ms.

The switches are located close to the connector J4, which is photographically illustrated on page 11.

The display is set to show always the outgoing signal also when monitoring the return signal on the headphone.

To change this to have the display following the "PHONE"-switch an intervention of our distributor or ourself is needed.

To access the dip switches on the board you proceed as described hereafter:

1. **Switch off the unit.**
2. **Unscrew both screws, securing the cover (Attention, these screws could fall off and get lost) and open it. The switches S1 and S4 are located below the connector J4 underneath the flat cable. Switch S3 is easily accessible below the DC-Converter U46.**
3. **If needed disconnect the flat cable.**
4. **Switch to the desired setting.**
5. **Connect the cable again, close the cover and secure it with the two screws.**
6. **Switch on the unit.**

7. Battery-control

On delivery, the "Low Batt" warning is set for the use of 12V NiCd Batteries starting to blink at 10,5V Battery tension. To protect batteries with different nominal tension you can change this setting as follows:

1. Press and maintain the "BATT" push-button
2. Now activate the "REF"-switch. On each movement one LED in the lower row of the display changes its position to the letter engraved below the display.

A = 12V batteries (Low Batt at 10,5V)

B = 13,2V batteries (Low Batt at 11,7V)

C = 14,4V batteries Low Batt at 12,9V)

A+C = 13,2V IonLithium batteries (IDX Endura; others in preparation).

Batteries with new technologies

Modern batteries offer capacities which can not be reached with usual NiCd-Batteries and, with the need of providing power to more and more accessories, a mixer must provide the possibility of using modern batteries – the same type as used on the camera.

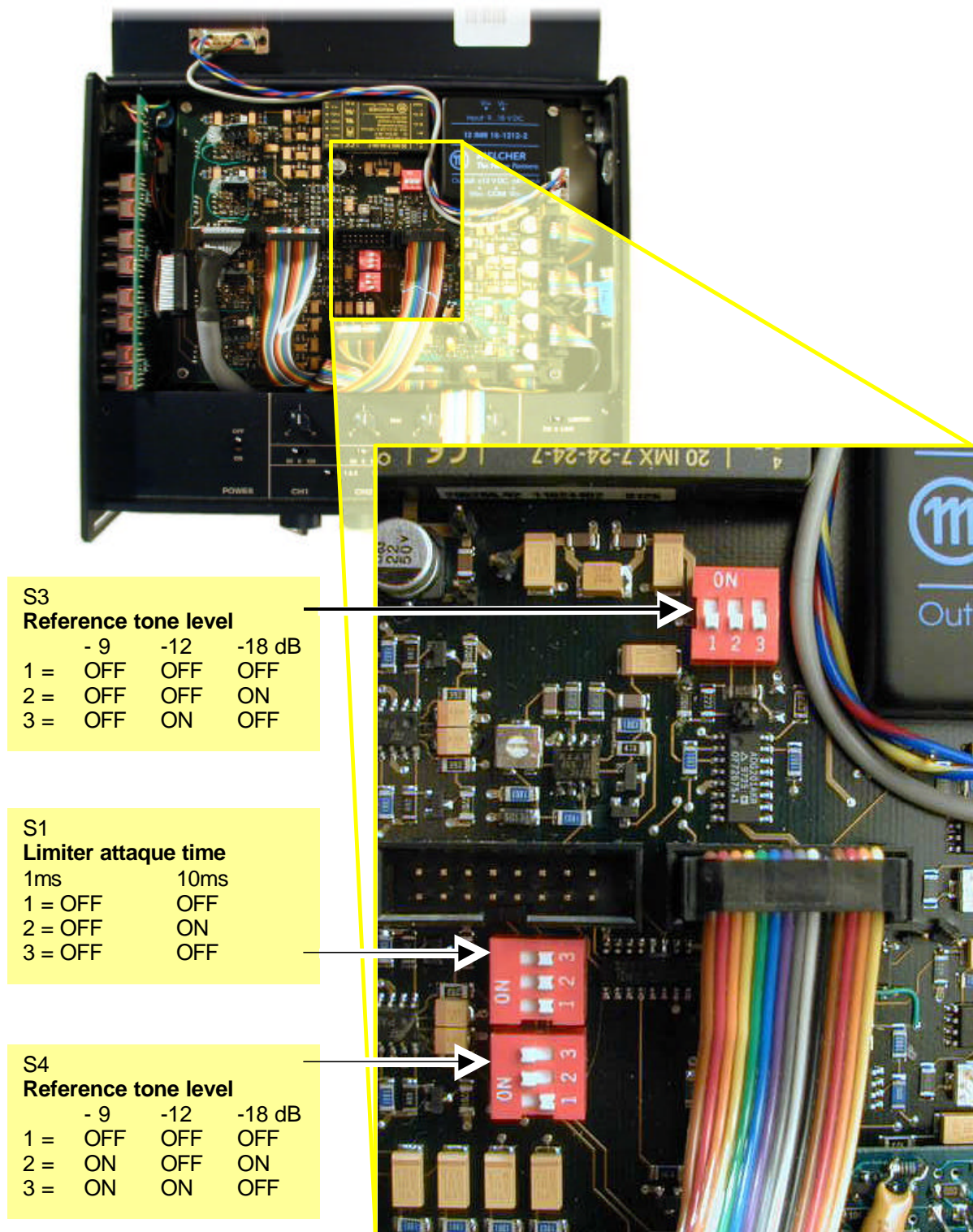
This is why the Mystère is prepared to receive the adapter plates used on the cameras to adapt to any available type of "lock-on" battery system. (V-mount from Sony, Pag-Lock, Anton Bauer). Mystère is also capable of using the information about remaining capacity from the battery and display it on the display.

These batteries need to be controlled by sophisticated electronics varying from one manufacturer to the other. This demands the manufacturer to optimise the charger for the electronics in his batteries. Therefore, it is recommended to make sure that a new battery can be charged with the existing charger without being harmed.

You may have to purchase as many different chargers as you have different type of batteries.

To be able to adapt the mixer to any battery, used by the camera definitely helps you to keep your budget.

Internal dip switch configuration



The HF Docking-Bay

Even though the HF-adapters are optional, the cover of the mixer is already equipped with the necessary contacts allowing a later upgrade without having to send the mixer to your service office. Simply screw it on the top of the mixer using the four screws you receive with the adapters.

The cover plates on the mixers cover protect and isolate the 64 golden contacts enabling the use of the HF adapters.

It is forbidden to switch on the mixer without these two protection plates mounted on top of the contacts or the adapters.

The connection between the adapters and the mixer is made through the contacts on row "A" which are numerated continuously from 1 – 16 for each Docking Bay.

This results in the following pinning-list:

Left Docking Bay:

Contact	Connection
A1 + A2	Input CH 4
A3 + A4	Input CH 3
A5 + A6	Return left
A13 + A14	Sender left
A9	Power Supply receiver + (Battery tension)
A12	Power Supply transmitter + (Battery tension)
A8 + A10 + A11	Ground

Right Docking Bay:

Contact	Connection
A1 + A2	Input CH 2
A3 + A4	Input CH 1
A5 + A6	Return right
A13 + A14	Sender right
A9	Power Supply receiver + (Battery tension)
A12	Power Supply transmitter + (Battery tension)
A8 + A10 + A11	Ground

HF-adapter on the left Docking Bay uses inputs 3 and 4 !

HF adapter on the right Docking Bay uses inputs 1 and 2

Should this irritate and disturb the user, the pairs of internal connections may be swapped to inverse inputs 3 and 4 against the pair of 1 and 2.

The 32 non utilised contacts are kept in reserved for future applications.