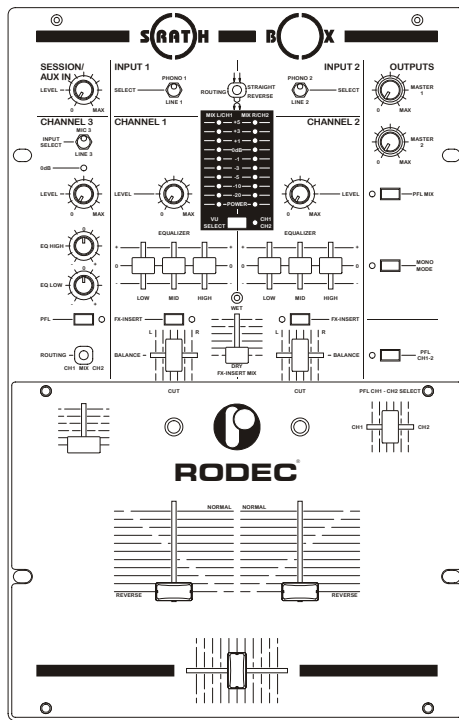
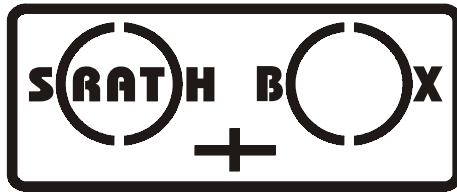


RODEC[®]



OPERATING INSTRUCTIONS

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SPECIFICATIONS

Inputs	Input sensitivity	Signal/Noise	Remarks
2 x PHONO	5.2mV/50kΩ	< -80dB	RIAA correction
4 x LINE	500mV/50kΩ	< -88dB	
1 x MIC DJ assymm.	8.0mV/1.2kΩ	< -79dB	Bass cut off filter
symm.	8.0mV/22kΩ		
Outputs			
2 x Master assymm.	775mV/10kΩ		
1 x Master symm	1.55V/600Ω		
1 x Aux/Rec/Session	775mV/10kΩ		
1 x Phones	7.7V/600Ω		Phones 600Ω-2kΩ

- THD: < 0.02%
- Tone controls: Bass +10dB/-21dB @ 100Hz
Mid +10dB/-21dB @ 1kHz
High +10dB/-21dB @ 10kHz
- Tone controls Channel 3: Bass +/-13dB @ 100Hz
High +/-13dB @ 10kHz
- Subsonic filter: -25dB @ 10Hz
- Power source: Standard with an AC-adaptor of: 230V / 50Hz-60Hz
On request: 100V-117V / 50Hz-60Hz
- Power consumption: OFF=8,7VA ON=22VA
- Approbation: CE
- Dimensions: Front: 254mm x 400mm (10" x 9HE)
Chassis: 224mm x 398mm x 84mm (same height as Technics SL-1210 MKII)
- Weight: 4.07kg

DESIGN AND SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

MODEL SCRATCHBOX

SERIAL NUMBER (on the back of the set)

Please give model and serial number when you request info.

Thank you very much for purchasing the **RODEC** SCRATCHBOX mixing panel.
This mixer is a top-line mixing panel, capable of outstanding performance in combination with high-grade systems.

SAFETY INSTRUCTIONS

- 1) Do not expose to rain or water. Do not spill liquid or insert (metal) objects inside the set. Rain, water or liquid such as cosmetics as well as metal, may cause electric shocks, which can result in fire or shock hazard. If anything gets inside, unplug the power cord.
- 2) Frayed cords and broken adapters may cause fire or shock hazard. Do not damage the power cord or adapter. When removing the power adapter from wall outlet, be sure to unplug by holding the plug attachment and not by pulling the cord.
- 3) Do not open the set; there are no serviceable parts inside. Only qualified service technicians can service inside your set.
- 4) Operate the set only from mains power source, which is indicated on the rating label of the adapter.
- 5) Use only the adapter included with the SCRATCHBOX.
- 6) Do not use chemical products to clean the set. Do not use contact spray or other products in the faders. The contact spray can damage the faders.

INSTALLATION OF THE MIXING PANEL

- 1) The set can be used in every position.
- 2) Don't place the set into direct sunlight, or in a warm moist or dusty place.
- 3) To avoid disturbances, do not place the set near disturbing apparatuses.

TOPPANEL, SWITCHES AND CONTROL

- 1) **Power "ON" indicators**
These indicators light up when the power is on.
- 2) **VU meter**
The VU-meter indicates the output- or split signal (mix or input), depending on the position of the VU-select switch (3).
- 3) **VU-select switch**
With this switch it is possible to select the signal displayed on the VU-meter (2). When the switch is in the up position, the MIX signal (left and right) will be visible on the VU-meter. When the switch is in the down position, the signal of channel 1 will be on left VU-meter and signal of channel 2 on right VU-meter.
- 4) **Input selector**
This switch is used to select input signals (PHONO or LINE).
- 5) **Routing switch**
With this switch, the channels 1 and 2 can be swapped. When the switch is on the upper (STRAIGHT) position, the signals of input 1 will appear on channel 1 and the signals of input 2 will appear on channel 2. In the down position (REVERSE) the signals of input 1 will appear on channel 2 and the signals of input 2 will appear on channel 1.
- 6) **Input Level potentiometer**
The input signal can be adjusted to the right level with these controls.
- 7) **Equalizer controls**
Used to regulate the degree of treble, mid and bass in the sound.

- 8) **FX-insert switch**
With this switch the signal of the input channel can be routed to the external effects unit.
- 9) **FX-insert mix fader**
This fader sets the proportion of signal without effect (dry signal) and signal with effect (wet signal). When the fader is at the dry position, there will be no signal routed to the effect output, when the fader is at the wet position, the entire signal will be routed to the effect output when the FX-insert switch (7) is activated.
- 10) **PFL CH1-2 switch**
This button will route the signals of channel 1 and 2 to the headphones output.
- 11) **PFL CH1-CH2 select fader**
With this fader, the signal for the headphones output can be selected. When moved completely to the left, the signal of channel 1 appears on the headphones. When moved completely to the right, the signal of channel 2 appears on the headphones. In between it results in a mix of both input signals.
- 12) **Balance control**
This fader adjusts the balance between the amount of sound on the left and on the right. When it is set to the center position, the gain is the same for the left and the right channel.
- 13) **Cut switch**
This switch is used to mute the signal instantly. This switch can be placed in 8 different directions upon the users preference. The cut switch can be used in 3 different modes (momentary cut, latching cut or double speed cut). How these directions and modes can be selected, is explained on page 7.
- 14) **Channel fader**
Volume control for input-channel 1 or 2.
- 15) **Crossfader**
With this fader you can easily fade between the input-channels 1 and 2. When the knob is pushed completely to the left, the signal of channel 1 will appear on the output. When the knob is pushed completely to the right, the signal of channel 2 will appear on the output. This crossfader has several settings, more details on page 8.
- 16) **Input selector**
This switch is used to select input signal (MIC or LINE) for channel 3.
- 17) **0dB LED**
When this LED lights up, the signal level is 0dB or higher.
- 18) **Input Level potentiometer**
The input signal can be adjusted to the desired level with this control knob.
- 19) **Equalizer controls**
With these knobs the amount of treble and bass can be adjusted.
- 20) **PFL switch**
This switch will route the signal of channel 3 to the headphones output.
- 21) **Routing selector**
With this selector the signal can be lead: a) directly to the mix (output) or b) to channel 1 or c) to channel 2.
- 22) **Channel fader**
Volume control for input-channel 3, when routing selector (21) is on MIX position.

- 23) **Level potentiometer**
The level of channel 4 (session/aux in) can be set with this knob.
- 24) **Mono mode Switch**
This switch is used to set the mixing panel in mono or stereo mode.
- 25) **PFL MIX switch**
This switch will route the MIX signal to the headphones output.
- 26) **Master output potentiometers**
These volume controls set final output level of mixer towards power amplifiers.

FRONTPANEL, SWITCHES AND CONTROL

- a) **Phones volume**
This button is used to adjust the volume of the headphones.
- b) **Phones output**
Output JACK's (1/4inch (6,3mm) and 1/8inch (3,2mm)) for high-level headphones monitoring. (Headphones 200-600Ω).
- c) **Fader reverse indication LED**
This LED will light up when the direction of the fader is reversed.
- d) **Fader reverse switch**
The direction of the channel fader can be reversed with this switch. When the switch is in the upper position (NORMAL), the channel fader (14) will work as follows: when the fader knob is in the most down position there will be no signal going to the output, when the fader knob is in the upper position the music signal to the output will be maximum. When the switch is in the lower position (REVERSE), the signal going to the output will be maximal when the fader knob (14) is in the lowest position and there will be no signal going to the output when the fader knob is in the upper position.
- e) **Fader curve potentiometer**
This potentiometer is used to set the control curve of the fader. When the knob is turned completely to left, the level controlled by the channel fader (14) will go very fast from maximum to zero in the first fraction of the sliding distance, when the fader knob is moved from most upper to lowest position.
When the fader curve potentiometer is turned to the outer right position, the level controlled by the channel fader (14) will go very fast from zero to maximum in the first fraction of the sliding distance, when the fader knob is moved from lowest to the most upper position.
When the fader curve potentiometer is positioned in the middle, the fader response will be equal to the response of a normal volume fader. The signal level will slowly rise from zero to maximum when the knob of the fader (14) is moved from lowest to most upper position.
- f) **Cross fader reverse indication LED**
This LED will light up when the direction of the cross fader is reversed.
- g) **Cross fader reverse switch**
The direction of the cross fader can be reversed with this switch. When the switch is in the upper position (NORMAL), the cross fader (15) will work as follows: when the fader knob is in the most left position the level of the signal of channel 1 will be maximum and the level of the signal of channel 2 will be zero. When the fader knob is in the most right position the level of the signal of channel 2 will be maximum and the level of the signal of channel 1 will be zero. When the switch is in the lower position (REVERSE), the cross fader (15) will work as follows: when the fader knob is in the most left position the level of the signal of channel 2 will be maximum and the level of the signal of channel 1 will be zero. When the fader knob is in the most right position the level of the signal of channel 1 will be maximum and the level of the signal of channel 2 will be zero.

- h) **Cross fader curve potentiometer**
This potentiometer is used to set the sharpness of the cross fader. When the potentiometer is turned completely to the left, the cross fader (15) will work as a normal cross fader. The volume of channel 2 will rise from 0 to maximum when the shaft of the cross fader is moved from the left to the middle. The same counts for the volume of channel 1, but then from the right side to the middle.
When the curve potentiometer is turned to the right, the cross fader will react very fast, with the volume of channel 2 rising from 0 to maximum when the shaft of the cross fader is moved from the left to a few fractions from the left. The same counts for the volume of channel 1, but then from the right side to a few fractions from the right side.

CONNECTIONPANEL

- A) **Power inlet**
Inlet to connect the power transformer. Use only the power transformer included with this mixing panel.
- B) **Power switch**
Controls the supply of AC power to the set. One push turns the mixing panel on, a second push turns it off. It remains in stand-by mode.
- C) **PHONO input Channels**
Phono inputs with a sensitivity of 5.2mV and built in RIAA correction.
- D) **Line input Channels**
Line input with a sensitivity of 500mV. To connect different apparatuses such as a CD-player, MP3 player, tuner, tape player, mini disc, video player, etc..
- E) **Ground**
If the record player has a ground wire, connect it to this ground terminal.
- F) **Channel 3 micro input**
Microphone input with a sensitivity of 8.0mV.
- G) **Line input Channel 3**
Line input with a sensitivity of 500mV.
- H) **Session/AUX input Channel 4**
Line input with a sensitivity of 500mV.
- I) **AUX input S/P DIF Channel 5 (optional)**
Optional digital S/P DIF format input.
- J) **Level potentiometer Channel 5 (optional)**
The level of channel 5 (S/P DIF input option) can be set with this knob.
- K) **FX insert**
In- and output to connect effect equipment to the music signal. Internally linked when JACK is not inserted. Sensitivity 775mV.
- L) **Aux/Rec/Session output**
Output to connect recorder to make recordings or to connect the SCRATCHBOX to an input of another mixer or pre-amplifier.
- M) **Aux S/P DIF output (optional)**
Optional digital output to connect to a recorder or to send the mixed signal of the SCRATCHBOX digitally to an input of another mixer or pre-amplifier.

- N) **Master outputs 1 and 2**
Assymetrical outputs to connect power-amplifiers. The output level can be respectively manipulated with the master potentiometers 1 and 2 (26) from 0 to maximum (775mV).
- O) **Symmetrical master output 1**
Symmetrical output to connect a power-amplifier. The output level can be manipulated with the master 1 potentiometer (26) from 0 to maximum (1.55V).

Please use signal cables shorter than 1 meter for the inputs and the outputs.

OPERATING INSTRUCTIONS

- 1) First switch all the connected music-sources on (like CD-players, turntables, etc.). Then switch the power button (B) to turn the SCRATCHBOX power supply on. The power indicators (1) will light up and a few seconds later the mixing panel will be in operation, ready state. In this stage you can turn the power amplifiers on.
- 2) Connect the headphones to phones output (b).
- 3) Choose with input switch (4) the desired source.
- 4) Put the routing switch (5) in upper position (straight). Activate the PFL of channel 1 and 2 with the PFL CH1-2 switch (10), put the PFL CH1-CH2 select fader (11) to the desired channel (1 or 2). Now you have the stereo signal on the headphones, when you turn the phones volume open (a). Put the VU select switch (3) on input, the input signal of channel 1 will appear on the left VU-meter and the signal of channel 2 on the right VU-meter. This is very useful to compare the level of these both signals. All these operations have no influence on the output signal! Adjust with the level control (6) the input signal so that the yellow indicators of the level meters (2) light up occasionally. Adjust if necessary the quality of the sound with the equalizer (7). The equalizer at each input is used to adjust the different sound between the sources or to be creative by manipulating the original music. To correct the acoustics of the room it is advised to use an external equalizer.
- 5) Put the cut switch (13) in it's center position (straight up), slide up the fader (14) of the chosen channel (1 or 2) and slide the cross fader (15) to the side of the chosen channel.
- 6) Adjust with the master (26) the volume. From this step, there is music at the output. By activating the PFL mix switch (25) the mixed signal will appear on the headphones output (b).
- 7) Now the music can be further manipulated in several ways. With the routing switch (5), the inputs of channel 1 and channel 2 can be reversed so that the input-signals connected to input 1 will be routed to channel 2 and the input signals of input 2 will appear on channel 1.
- 8) With the FX-insert switch (8) the signal can be routed to an external effects unit, which can be connected to the FX-insert connectors (K). When the FX-insert switch (8) is activated, the signal will go straight (without effect) to the mix when the FX-insert mix fader (9) is at the lowest (DRY) position. When the FX-insert mix fader (9) is moved up more, the amount of signal without effect will decrease and the signal will be more and more routed via the external effect. When the fader is completely up (WET), the signal will be completely routed via the external effects unit. It is possible to route both input channels (1 and 2) together via the external FX-insert JACKs.
- 9) With the balance knob (12), the signal can be placed more to the left or to the right in the stereo image.
- 10) The cut switch can be used in 3 modes and can be placed in 8 directions. To modify the mode or change the operating position of the cut switches, the aluminium-anodized scratchplate must be removed. To do this, the 5 fader knobs (22, 2 x 14, 11 and 15 see drawing on page 11) must be removed. Then the 4 screws in the corners of the scratchplate must be

unscrewed. Please be sure that the power of the mixing panel is off, to avoid damage inside the mixing panel when it is open.

The 3 operating modes of the cut switches can be selected by pulling off the flat-cable with 3-pole connector that is placed on the cut switch PCB. Then this connector can be placed on one of the 3 connectors on the cut switch PCB, by this you choose the desired operation mode.

- a) Upper connector, in this mode the cut switch will work in momentary mode. The music signal will be interrupted (cut) when the switch is operated. When the switch is released again, the music signal will automatically come back.
- b) Middle connector, in this mode, the cut switch will work in latching mode. The music signal will be interrupted when the switch is operated. The music signal will not automatically return when the switch is released. To let the music come back the user has to return the lever of the switch manually to its straight (center) position again.
- c) Lowest connector, this is the double speed mode. It is a combination of a and b. In one direction the switch will work as momentary cut switch and in the other direction it will work as latching cut switch.

The flat-cables with 3-pole connector are marked, SWCH1 for the cut switch of channel 1 and SWCH2 for channel 2 it's cut switch.

To change the operating direction of the switch, the nut of the switch must be unscrewed, then the switch can be taken out and be replaced in the wanted direction. Please be sure that the small rings and washers are kept in the same position.

- 11) When you unscrew the scratchplate (as described in step 1), the faders can be replaced. Both the channel faders and the cross fader can be normal analog faders or digital optical faders. For the channel faders, the analog faders must be placed with the 4-pole connector to the left. Analog faders must be connected with the cable marked with AFCH1 for channel 1 fader and AFCH2 for channel 2 fader. When there are digital faders placed as channel faders, these faders must be placed with the friction-adjust screw to the left. These faders must be connected with the cable marked with DFCH1 for channel 1 and marked with DFCH2 for channel 2.
When an analog fader is used as cross fader, this fader must be installed with its 4-pole connector to the side of the channel faders. The analog cross fader must be connected with the flat-cable marked with ACF. When a digital cross fader is used, this must be placed with the friction-adjust screw on the side of the channel faders. It must be connected with the flat-cable marked DCF.
- 12) The response curve of the channel faders (14) can be adjusted with the curve control potentiometer (e) and the response curve of the cross fader (15) can be adjusted with the curve control potentiometer (h). With the fader direction switches (d) the operating direction of the channel faders can be chosen, with the cross fader direction switch (f) the direction of the cross fader can be changed.
When the digital optical faders are used, there are some other possibilities that can be adjusted.
 - a) The slide friction of the shaft. This friction can be changed by screwing the screw near the shaft of the fader more in or out.
 - b) The cut in distance, this distance can be set with the small screws on the outer ends of the fader. By screwing these screws more in or out the cut in distance can be made shorter or longer.
- 13) When a back tape signal or the output of another mixing panel has to be connected, this can be done by connecting these signals to the session/aux input (H). The level must be adjusted before another sound source is playing. Put the VU select button on MIX (upper position) and then adjust the level of the session/aux in channel with the level potentiometer (23) until the yellow LED's of the VU meter (2) light up occasionally. By this operation the back tape level is set to unity gain.
- 14) To add a microphone signal, connect the mike to the MIC input (F). Select mic 3 with the input selector switch of channel 3 (16). Turn the level control (18) to zero, put the routing switch (21) in the center position and slide the channel 3 fader (22) open and adjust the volume of the microphone with the level button (18). Adjust the sound of the mic with the equalizer (19).

- 15) If you do not use a microphone, you can use channel 3 as line input. Put the input select switch of channel 3 (16) on line 3 position. Adjust the level of the input signal with the level potentiometer (18) so that the 0dB LED (17) lights up only at the peaks in the music. This signal can be pre-fade listened by pushing the PFL switch of channel 3 (20). The sound (amount of bass and treble) can be adjusted with the EQ high and EQ low knobs (19). The signal of channel 3 can be routed straight to the mix (output) or can be routed to channel 1 or channel 2 by putting the routing switch (21) to the left or right. When the signal is routed to channel 1 or 2, all the functions below the equalizer (7) will work on this signal. These functions are: FX-insert (8), FX-insert mix (9), balance (12), cut switches (13), channel faders (14), channel fader direction switches (d), channel fader curve adjust (e), cross fader (15), cross fader direction (g) and cross fader curve potentiometer (h).
- 16) The mixing panel can be used in mono mode (left out = right out = (left signal + right signal)/2) by activating the mono mode switch (25).
- 17) If you wish to record the mixed signal, or if you want to connect the output of this mixing panel to the input of another mixing panel or pre-amplifier, you can simply do this by connecting a recorder, or the other mixing panel's inputs to the auxiliary/record/session out connectors (L).
- 18) If a certain input is not used, but the channel-fader and level potentiometer is opened, it is recommended to put the RCA input termination plugs on the unused input to avoid disturbances. Four of these plugs are supplied together with the SCRATCHBOX.

OPTIONS

- 1) **Digital optical channel fader**
SCRATCHBOX-users who like to upgrade the channel faders of their SCRATCHBOX, can replace the analog fader by a digital optical fader. This is the same as the digital optical cross fader. The digital optical channel faders must be connected with the flat-cables inside the mixing panel marked with DFCH1 for channel 1 and DFCH2 for channel 2. The Digital optical channel fader option can be ordered at every authorized RODEC-dealer.
Order code= 94 001 0063
- 2) **Digital session/aux/back-tape input**
To connect a digital input S/P DIF (Sony/Philips digital interface format) coaxial signal, there is an optional digital session/aux/back-tape input unit available. This unit can easily (with only one screwdriver) be mounted inside the mixing panel. To mount this optional unit the SCRATCHBOX has to be opened at the bottom. To do this be absolutely sure that the power supply unit of the SCRATCHBOX is NOT connected to the SCRATCHBOX. Then following screws must be unscrewed: one screw at the left and one at the right side panel of the SCRATCHBOX, two screws at the bottom of the SCRATCHBOX (near the connection panel) and two screws at the front panel, below the handles. When these 6 screws are unscrewed, the bottom box can be taken off.
The two plastic hole covers (I and J) must be removed. The digital input unit can now be placed in the holes and screwed to the back panel with the screw included in the digital input unit package. Then the 3-pole flat-cable marked +18V/-18V must be connected to one of the free 3-pole connectors marked +18/-18/GND (J6, J7, J8 or J9) on the opposite side of the main PCB (66 001 0033).
The other 3-pole flat-cable must be connected to the connector marked "auxiliary in" (J10) on the main PCB (66 001 0033). After that, the SCRATCHBOX can be closed again.
Then a digital signal can be connected to the digital input. The level must be adjusted with the digital input level potentiometer (J) before another music source is playing, so that the yellow LEDs of the VU meter (2) light up only at the peaks in the music. To do this put the VU select switch (3) in upper (mix) position.
This optional digital input unit can be ordered at every authorized RODEC-dealer.
Order code= 94 001 0042
- 3) **Digital record/aux/session output**

To connect a digital output S/P DIF (Sony/Philips digital interface format) coaxial signal, there is an optional digital session/aux/back-tape output unit available. This unit can easily (with only one screwdriver) be mounted inside the mixing panel. To mount this optional unit the SCRATCHBOX has to be opened at the bottom. How to do this is described in point 2 above. When the bottom box is opened, the plastic hole cover (M) must be removed. The digital output unit can then be placed in the hole and screwed to the back panel with the screw included in the digital output unit package. Then the 3-pole flat-cable marked +18V/-18V must be connected to one of the free 3-pole connectors marked +18/-18/GND (J6, J7, J8 or J9) on the other side of the main PCB (66 001 0033).

The other 3-pole flat-cable must be connected to the connector marked "record out" in (J13) on the main PCB (66 001 0033). After that, the SCRATCHBOX can be closed again.

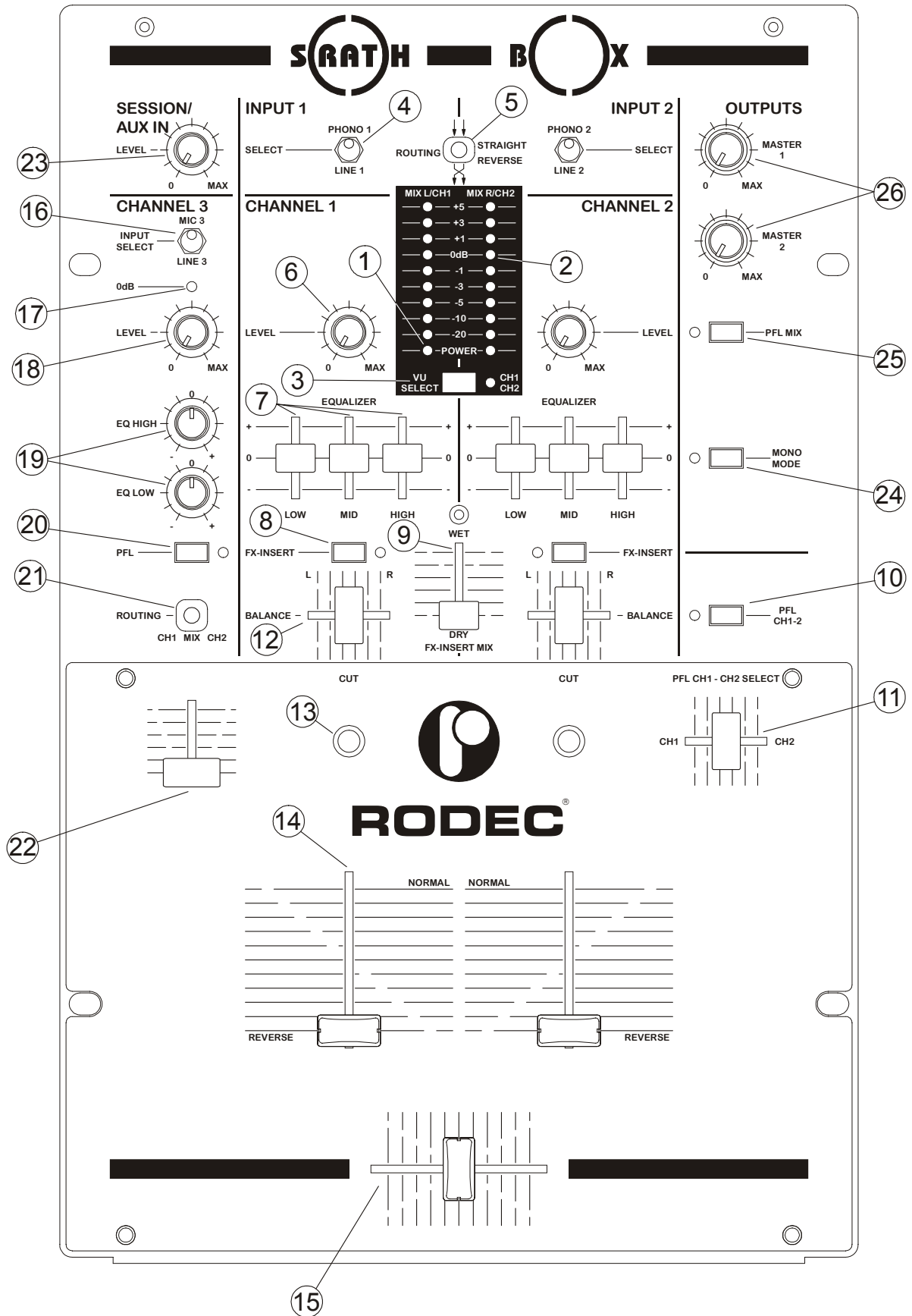
Now the mixed signal is available on the digital output connector (M) and can be used for recording the mixed signal or for connecting to a digital input of another mixing panel.

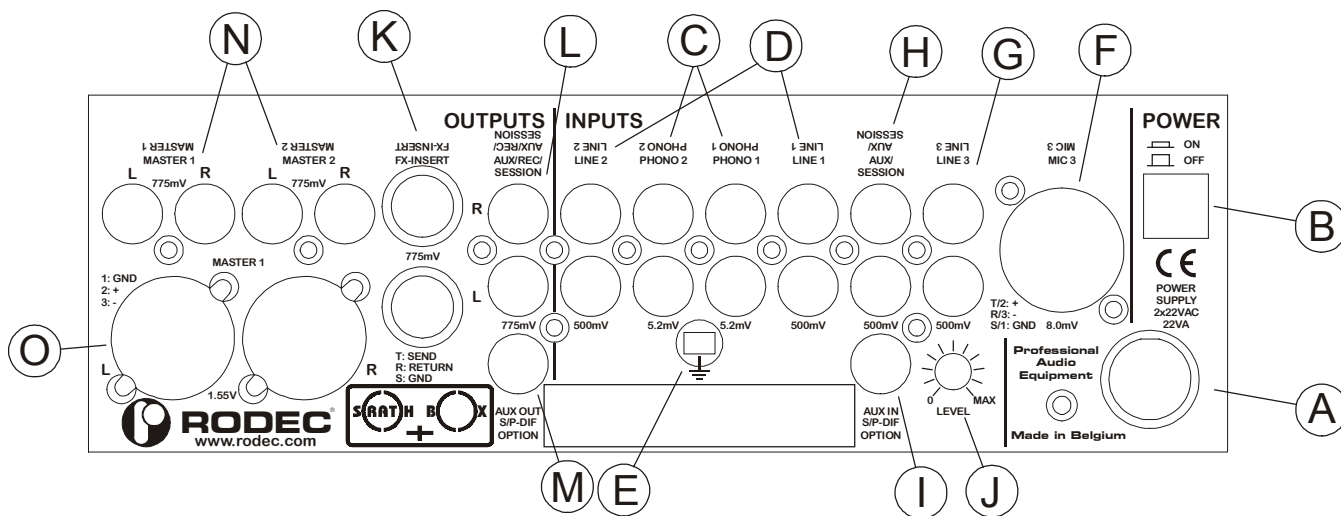
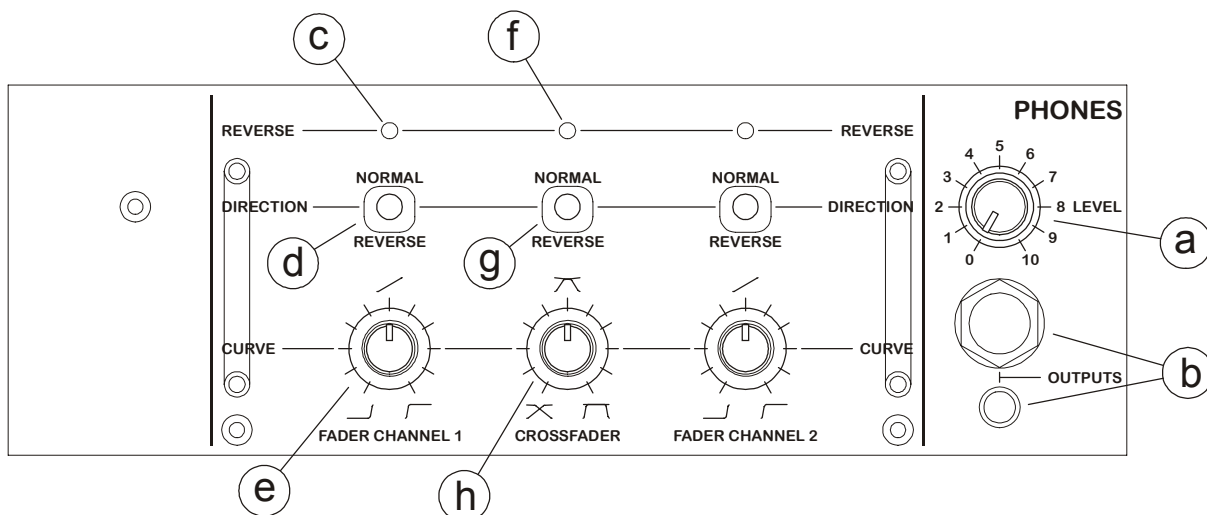
The digital record/aux/session output option can be ordered at every authorized RODEC-dealer.

Order code= 94 001 0043

SPARE PARTS

- 1) **Digital optical channel- or cross fader**
Order code= 94 001 0063
- 2) **Analog channel- or cross fader**
Order code= 94 001 0064
- 3) **Standard knobs set SCRATCHBOX**
Order code= 94 001 0065
- 4) **Fader knobs set SCRATCHBOX**
Order code= 94 001 0066





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