

UHER

STEREO-MISCHPULT

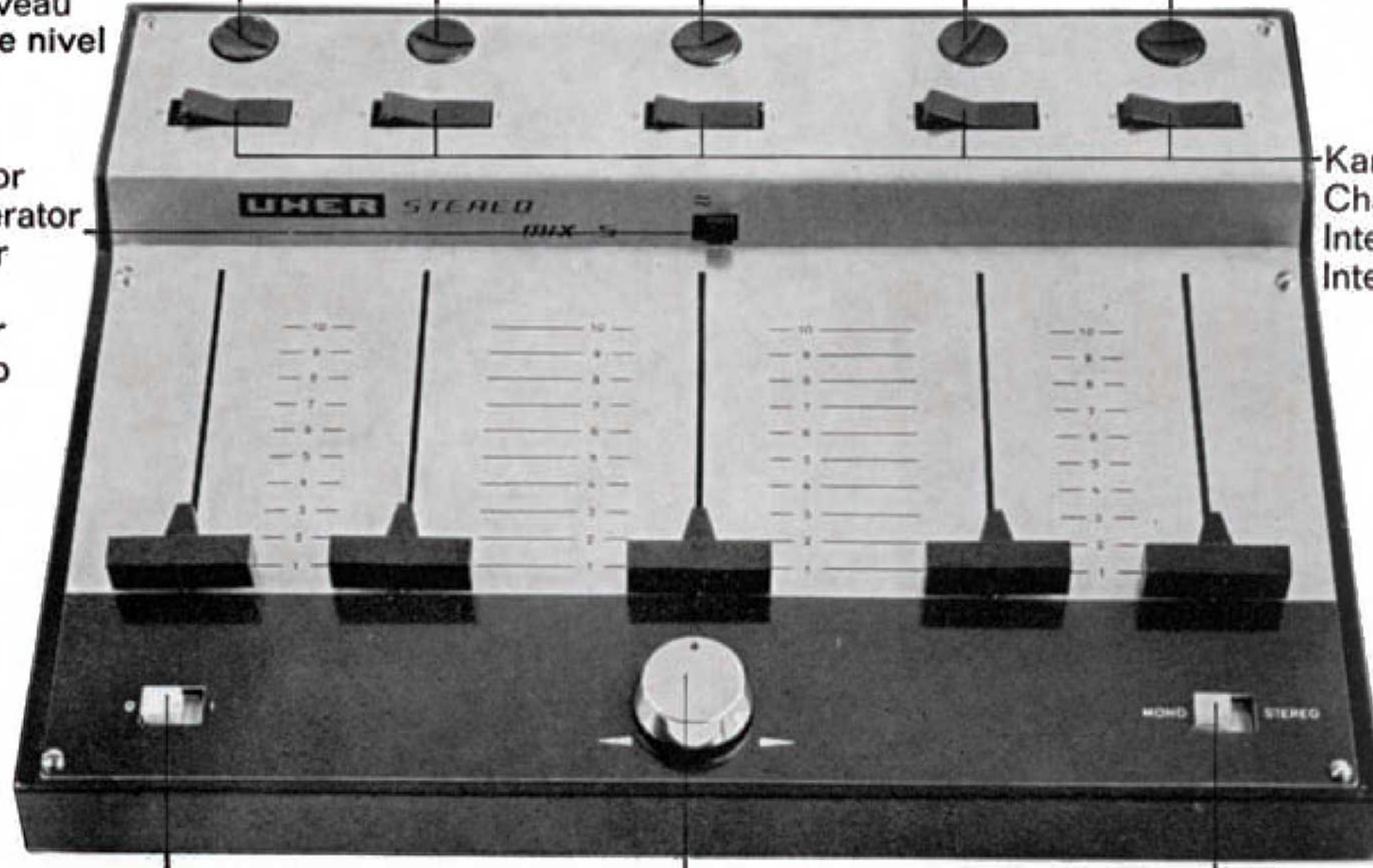
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Operating Instructions

Pegelregler
Level controls
Régleurs de niveau
Reguladores de nivel

Schalter Pegeltongenerator
Switch for level tone generator
Interrupteur du générateur
de son de niveau
Conectador del generador
de la nivelación del sonido

Kanalschalter
Channel switches
Interrupteurs de canaux
Interruptores de los canales



Batterieschalter
Battery switch
Interrupteur de pile
Conectador de la batería

Richtungsregler
Direction control
Régleur de direction
Regulador de dirección

Mono - Stereo - Schalter
Mono - Stereo - Switch
Interrupteur Mono - Stéréo
Conectador - Mono - Estereo

The UHER Stereo Transistor Mixing Console has been arranged for mono and stereo operation and permits the mixing and fading of five mono or two stereo sound sources and one mono sound source; a special control incorporated in the stereo base permits the latter to be regulated in respect of its direction for the purpose of obtaining "movements effects".

All channels have been provided with two-stage transistor amplifiers, which has not only resulted in producing the facility for the direct connection of microphones to all inputs, but also based upon good amplification, excellent channel separation and superb dynamic features of the mixing console.

The built-in level tone generator not only facilitates the optimum adjustment of the level control, belonging to tape recorders connected to the instrument, but also supplies an indication concerning the condition of the battery supplying the power for the

mixing console; this is important, since the oscillations of the generator will cease below a certain minimum voltage.

The fields of application of a mixing console as well as the means for connecting different sound sources are so numerous that their full description is outside the scope of a single operating instruction booklet. May we therefore appeal to the user in appreciating that, apart from a small number of examples, we had to concentrate on the essential technical references. Anyone who has decided to acquire a mixing console will surely possess sufficient experience and knowledge, which will enable him by following these references to make the various connections without difficulty in compliance with his particular wishes and requirements. Should the need arise, any expert will be able to provide advice and information based upon the technical data provided.

Power Supply

The UHER STEREO-MIX 5 is fed from a battery in the instrument and thus does not depend upon a mains supply. Battery supply is the only means for ensuring troublefree operation and a satisfactory signal-to-noise level of the mixing console. We therefore emphatically warn against the use of mains-operated power packs in any form whatever.

For replacing the battery, slacken the screw in the base of the mixing console, disconnect the pushbutton terminal of the battery lead, remove the used battery and insert a new one in the holder, previously having replaced the non-reversible battery lead connection. After this, refit the base plate.

Please refer to the section dealing with "The Level Tone Generator" concerning the method for checking the battery.

Connection to a Tape Recorder

The UHER STEREO-MIX 5 is suitable for connection to all stereo tape recorders having standard-type jacks. Connection to a tape recorder is made with conventional audio leads, e. g. type K 511 (mono operation) or type K 541 (stereo operation). This requires a plug of the audio lead to be inserted in jack A of the mixing console and the other plug in jack "Radio" of the tape recorder.

Switching-on the Instrument

The mixing console is switched on and immediately ready for use, if the battery switch, situated in front on the left-hand side of the control panel is slid to the right. Do not forget to switch off after use (slide battery switch to the left), in order to avoid the battery being discharged unnecessarily.

Selecting the Operating Mode

Mono or stereo operation is selected with the mono/stereo switch provided.

The Inputs

The input jacks at the front end of the mixing console have been marked with numbers. By consulting the two-page table in this booklet, the types of sound sources which can be connected may be ascertained.

The Mixing Controls

All channels are regulated with the aid of studiotype controls such as used in professional studios. The facility for regulating each channel individually with stereo operation, provides the opportunity of shaping the character of stereo recordings at will. If required, the controls may also be linked with a connecting piece.

Channel Switches

Easy to operate toggle switches permit each individual channel to be switched on and off without producing clicks.

Level Tone Generator

The quality of recordings made with mixing consoles largely depends upon the optimum adjustment of the level control of the tape recorder. In this connection the UHER STEREO-MIX 5 will eliminate all difficulties of this nature, so that optimum contrast of the recordings is obtained at all times. The correct adjustment of the level control is effected with the aid of the level tone generator in the following manner:

1. Set the mono/stereo switch according to the operating mode required.
2. Switch on the level tone generator and rotate the level control of the tape recorder, which is ready for operation until the full modulation of the level signal is indicated. With stereo tape recorders incorporating separate level controls for each channel, both controls must be adjusted.

In the case of stereo operation the level tone generator transmits signals to each channel which accurately coincide in their voltages. Should with stereo tape recorders possessing one level control, but equipped with two level indicators, a varying level indication of the channels be observed, adjust the level control in such a manner that full modulation is indicated for one channel only. This difference will be compensated again by the subsequent adjustment of the level controls.

Should the level tone generator cease to function, the battery provided in the instrument has become unserviceable and must be replaced. Since the modulation adjustment is effected before commencing with work using the mixing console, this simultaneously entails a check on the battery condition. Thus the chance of inadvertently working with a used battery is therefore absolutely excluded.

The Level Controls

In order that equal settings of the mixing controls will produce equal volume in the channels, suitable level controls have been

provided, which permit the matching of sound sources with varying voltage outputs. Having previously adjusted the level control of the tape recorder with the level tone generator, the adjustment is made as follows:

1. Slide the mixing control of the channel whose level is to be adjusted to "10" and turn the associated level control fully clockwise.
2. Turn the level control counterclockwise while constantly checking the level indication of the tape recorder until full modulation is still being indicated by the level indicator of the tape recorder during the loudest passages of the performance.

Appropriate settings for stereo operation:

1. Slide mixing control of the channels whose level is to be adjusted to "10" and turn both the associated level controls fully clockwise.
2. Continue turning the level control of the more powerful channel counterclockwise until full modulation of the volume peaks is still being indicated by the tape recorder.
3. Slide the level control of the other channel irrespective of the level control indication to the same position, the markings on the control knobs serving for your guidance.

Input	Input Impedance	Input voltage	Alternative connections	Remarks
1 and 6	3 Kohms	0.1 mV-25 mV	Low-impedance microphones and all matching sound sources.	With stereo operation, sound sources connected here (mono) will record on channel 1 (left).
2 and 7	2x47 Kohms and 2x1 Mohm	3.5 mV-500 mV or 70 mV-10 V	High-impedance stereo microphones, high-impedance mono microphones, mono or stereo record players, mono or stereo tape recorders, mono or stereo radios and all matching sound sources.	With stereo operation, mono sound sources connected here will record on channel 1 (left). Stereo record players still equipped with a 3-pole round plug, must be re-equipped with the standard 5-pole stereo plug.
3 and 8	3 Kohms	0.1 mV-25 mV	Low-impedance mono microphones and all matching sound sources.	With stereo operation, mono sound sources will record on channel 2 (right).

Input	Input Impedance	Input voltage	Alternative connections	Remarks
4	3 Kohms	0.1 mV-25 mV	Low-impedance microphones and all matching sound sources (mono).	<p>With stereo operation, the mono sound sources connected here can be optionally smoothly faded into channel 1 (left) or channel 2 (right) and vice versa respectively. (Movement effect). Volume can be regulated with the mixing control. With mono operation only the mixing control is used. Set direction control to central position.</p>
5	47 Kohms and 1 Mohm respectively	3.5 mV-500 mV or 70 mV-10 V	High-impedance microphones, (mono), mono radio sets, mono record players or mono tape recorders and all matching mono sound sources.	<p>With stereo operation, sound sources connected here can be optionally smoothly faded into channel 1 (left) or channel 2 (right) and vice versa respectively (movement effect). Volume can be regulated with the mixing control.</p> <p>With mono operation only the mixing control is used. Set direction control to central position.</p>

The Direction Control

This control provides the facility during stereo operation for making a mono sound source drift from left to right or vice versa within the complex of the stereo sound impression. According to which direction the control knob is turned, the sound source will

Applications

From the large number of applications, you will no doubt discover after a short settling down period which these are. Just a few of these shall be described by reference to practical examples and some sketches.

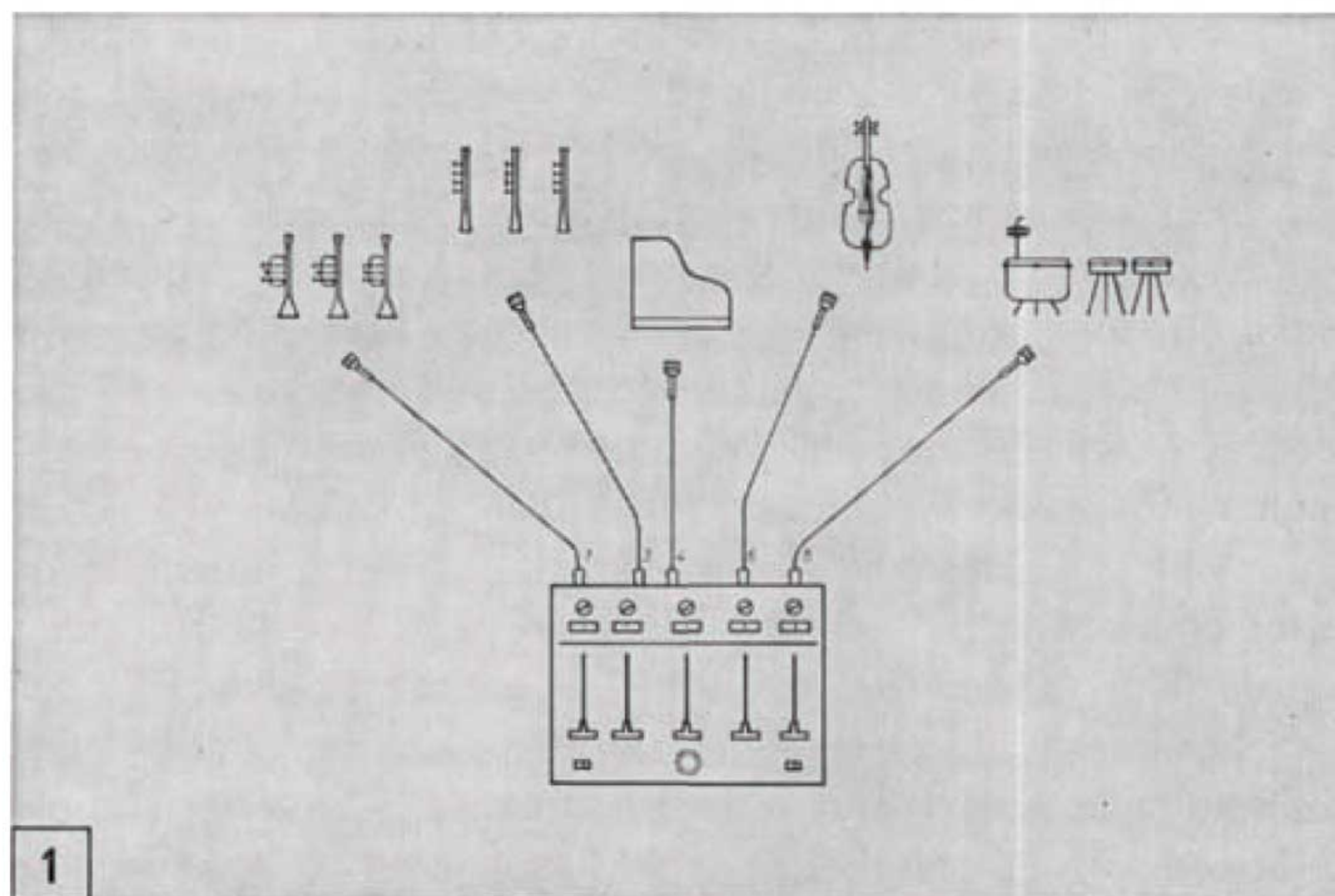
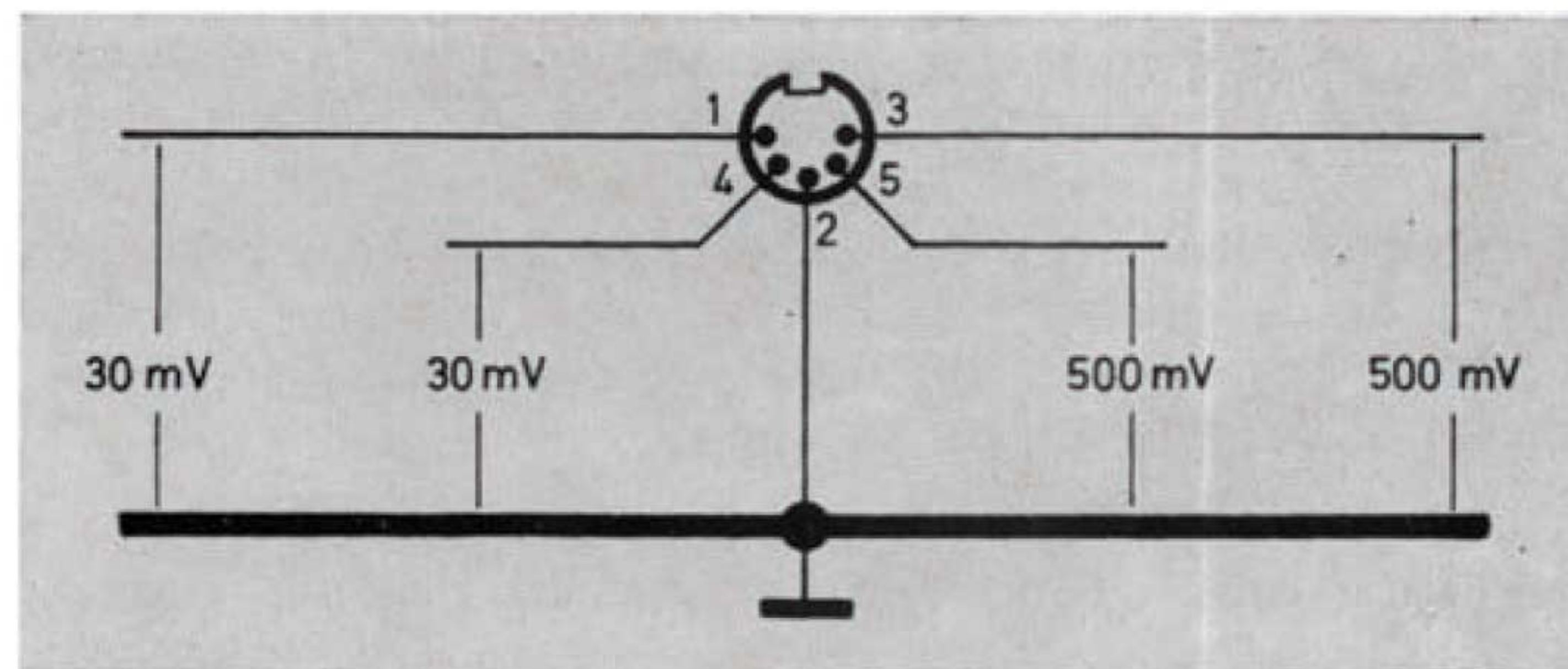
UHER STEREO-MIX 5 in conjunction with Amplifier Equipment

The high output voltage of the mixing console permits also of its connection directly to the input of mono and stereo amplifier equipment, which in this manner is expanded into a high-quality mixing amplifier. Both 30 mV and 500 mV output voltage are available at socket A. The K 541 stereo lead is used for connection to the amplifier. The sketch diagram shows at which socket contacts the two output voltages are available.

Using several Microphones

In professional studios several microphones are invariably used during the recording of music, in order to pick up the individual instruments of the soloists rather better and at the same time to endow the sound recording with greater brilliance. Up to five microphones can be connected to the UHER STEREO-MIX 5 and controlled individually with mono or stereo operation. (Fig. 1).

either drift to the left or right. The central setting of the control causes the sound complex to appear in the center of the stereo base. The central mixing control additionally permits a fading in or out of the effect.



Connecting Different Sound Sources

As an example Fig. 2 illustrates the connection of a microphone, a record player and two tape recorders, a combination very frequently employed during the adding of sound to series of slides or amateur ciné film. While the spoken word is being recorded through the microphone, the fading-in of the musical accompaniment or sounds is carried out either with the aid of a record player or the tape recorders. In place of the tape recorders, additional record players may also be connected.

Making Multiple Trick Recordings

Although in the main trick recordings are made with stereo tape recorders using the Synchroplay or Multiplay methods, such recordings are perfectly feasible by employing the UHER STEREO-MIX 5 together with two mono tape recorders. As illustrated in Fig. 3, the tape recorders (1 and 2) are connected to the mixing console. The first recording is made with tape recorder 1 and a microphone connected to it. After ending this recording, rewind the tape, switch tape recorder 1 to "Playback" and tape recorder 2 to "Recording". The playback of tape recorder 1 is monitored via earphones, whereas a second recording is made with the microphone connected to the mixing console. Tape recorder 2 used for the recording now records both performances simultaneously and synchronized at a level of volume which can be set with the aid of the mixing console. If additional voices or instruments are to be included, place the tape recorded by tape recorder 2 on to tape recorder 1 and repeat the process. In order to avoid undesirable echo effects in this case, the built-in loudspeakers of both recorders are disconnected. Monitoring is now performed with the earphones.

