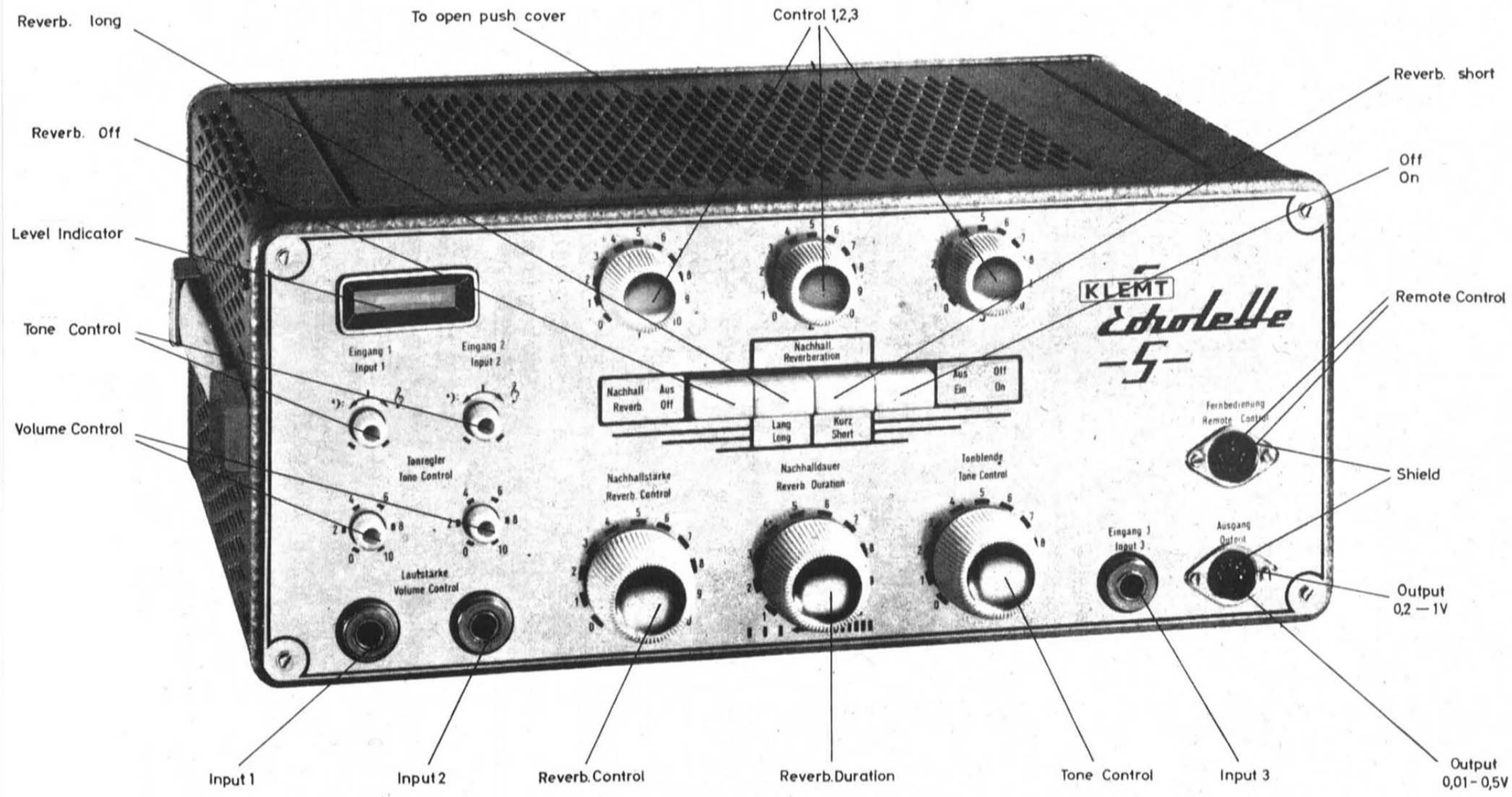
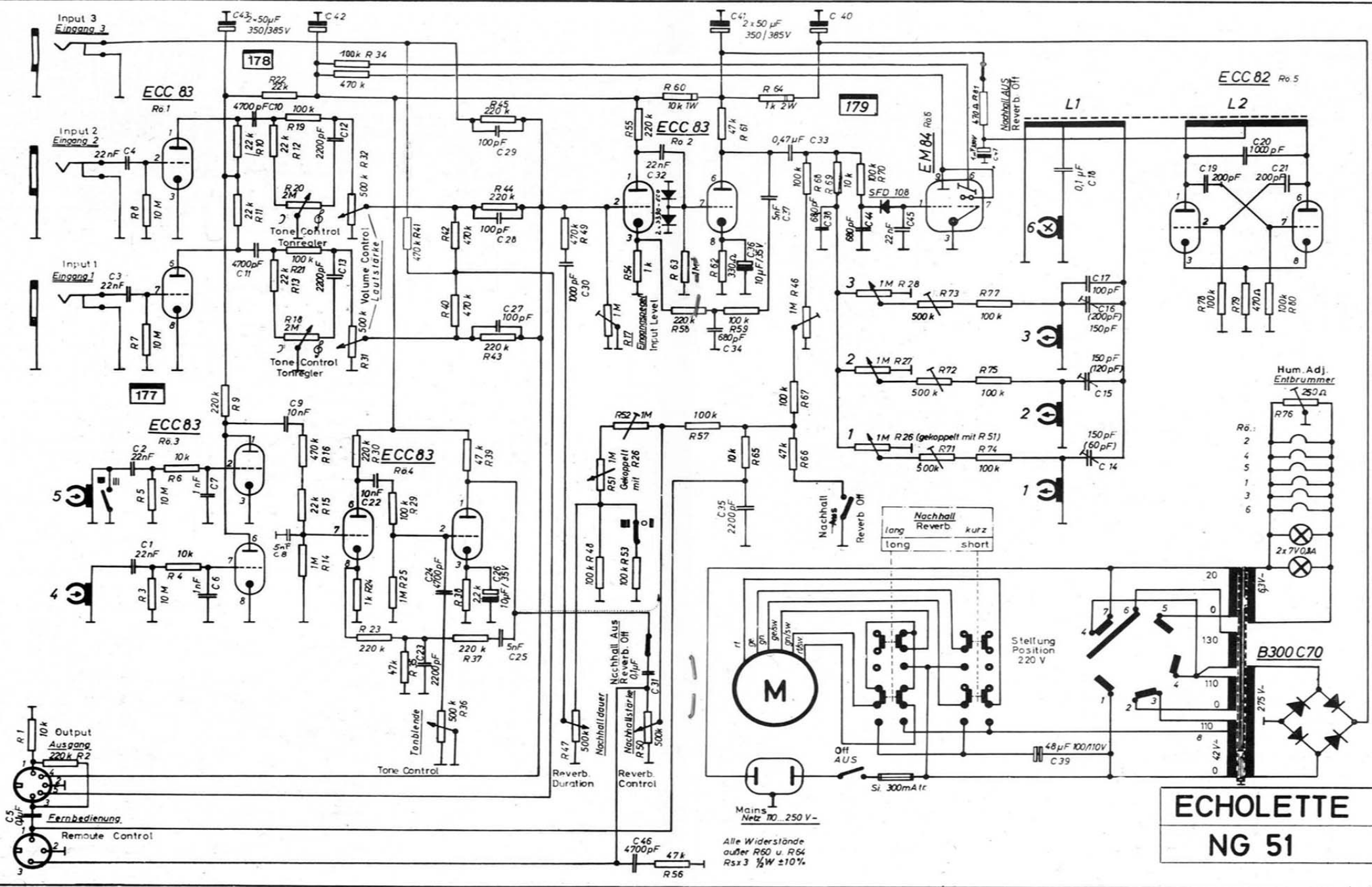


Instruction Manual
Bedienungsanweisung



Edellette · DISTRIBUTOR HANS BAUER
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Telefon 0811/313 20 01-3 / Telex 05-24 201

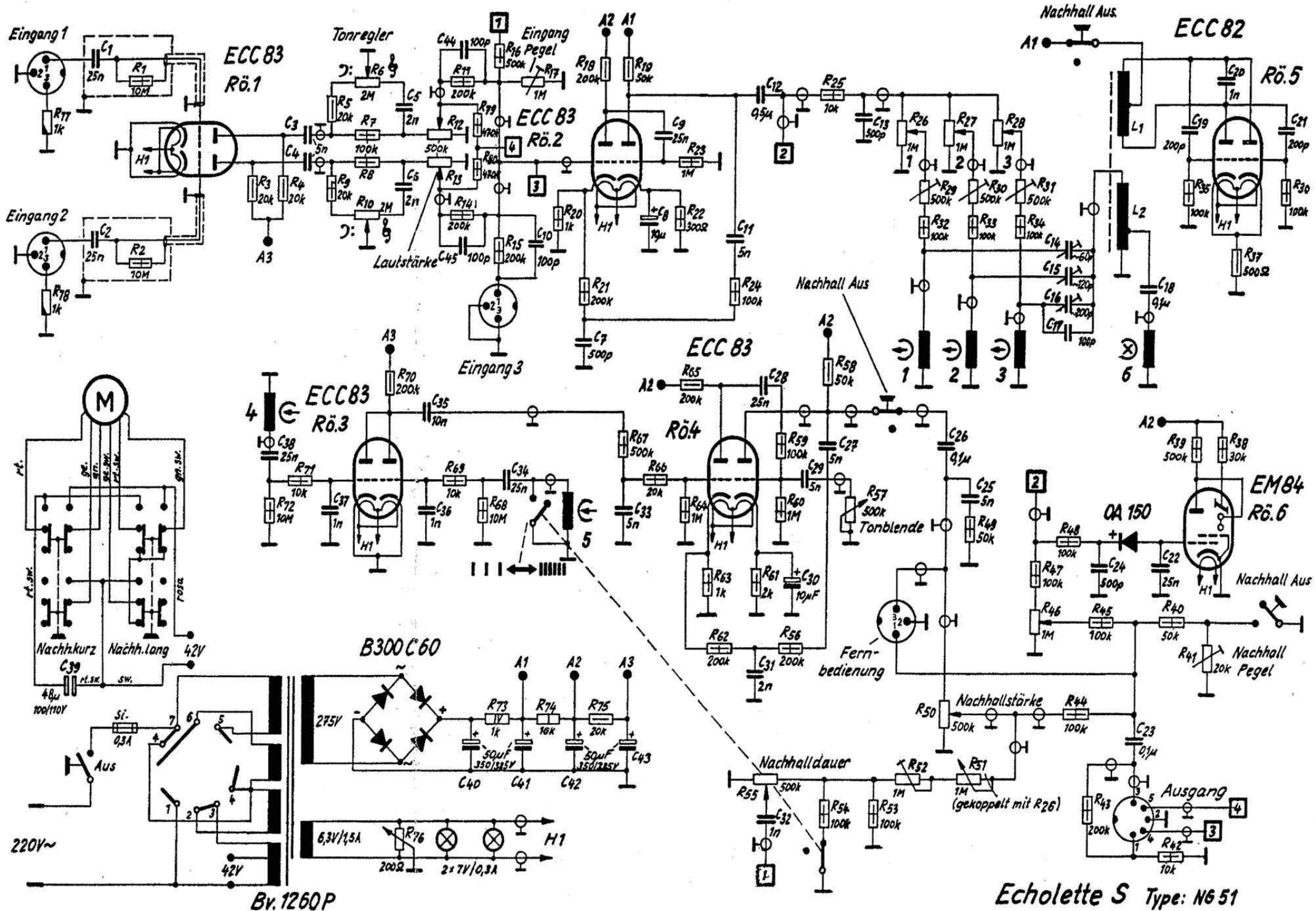




Nachhall
 lang kurz
 long short

**ECHOLETTE
 NG 51**

Alle Widerstände
 außer R50 u. R64
 Rsx 3 1/2W ±10%



Technical specifications:

1. 2 microphone inputs:	5 200 mV, for high and low resistance microphones and pickups. Inputs can be controlled and mixed separately, separate bass or treble control.
2. Input for electronic musical instruments:	1 -- 2V, 100kQ
3. Outputs for amplifiers:	0.2V — 1V, 100kQ (pins 3 and 2) 0.01 0.05V, 10kQ (pins 1 and 2)
4. Generation of reverberation:	by endless magnetic tape and 1---6 magnetic heads
5. Reverberation time:	0.1 — 3 sec 1. - by 2 belt speeds 2. through several adjustable sound heads 3. by controllable feedback
6. Number of echoes:	1 — 30
7. Tube assembly:	4 x ECC 83 (12AX 7) 1 x ECC 82 (12AU7) EM 84 (level display)
diodes:	1 x B300C70
8. Operating voltage:	50Hz, 110, 130,150, 220, 240, 250V
9. Power requirements:	45VA
10. Dimensions and weight:	32.5x13.5x24.5cm 8 kg net 9 kg gross

General

The Echolette is a sound effects device specially designed and developed for musicians and orchestras

The sound tricks used in record studios (echo, reverb, shatter) can be generated with the Echolette in a largely controllable manner.

The robust mechanical construction ensures the simple principle (Endless belt loops and the overdimensioning of the components) for operational safety.

With some practice and after reviewing this manual, it is possible to fully utilize the versatile effect possibilities.

Mode of action:

The sound voltage from which reverberation is to be generated is Three magnetic heads 1, 2, 3 supplied, with an endless magnetisable tape. The 3 magnetic sound recording heads are along the endless magnetic tape - offset with a certain distance, so that according to the tape speed the magnetization of the magnetic tape is carried out by the audio voltage at certain time intervals.

After the 3 magnetic sound recording heads are two playback heads 4 and 5 arranged (the playback head 5 can be switched off), which convert the magnetization of the tape back into the audio voltage.

This recorded audio is amplified and added to the direct audio mixes. The direct audio voltage and 3 or 6 are therefore available at the output chronologically subsequent tone voltages available, which create a reverb effect. After the playback heads is a Erasing head 6, so that the magnetic tape is ready for re-recording after the previous recording is deleted.

Through a built-in controllable feedback from the playback heads 4 and 5 to the magnetic sound recording heads 1, 2, 3 it is possible the corresponding to the 3 magnetic sound recording heads from 3 or 6 individual reverberation effects existing reverberation by further extending reverberation effects. The speed of the magnetic tape is in 2 stages switchable (15 cm/sec. and 30 cm/sec.).

The input voltages of the microphones (5-200mV) are separated by 2 tube systems of the tube 1 (dual triode) amplified and are separately controlled and mixed. A further amplification takes place through the tube 2. Higher input tensions, e.g. B. voltages from electronic musical instruments who fed directly to the tube 2. The audio voltages of the playback heads 4 and 5 are reinforced by tubes 3 and 4 and together with the direct tone voltage, which is without reverberation, is assigned to the output leads. To check the correct modulation of the magnetic tape is the tube 6 (magic band) installed. The erasure of the magnetic sound band and the pre-magnetization takes place with a high-frequency span voltage which is generated in the tube 6 (erase oscillator).

Service

A) Input and output connection.

The echolette is wired between the microphone and the amplifier

Socket and connection designation when looking at the front panel



Input 1



Input 2



Input 3



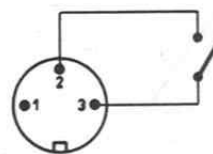
remote control



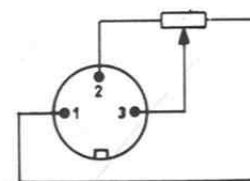
Output

1. At the inputs 1 and 2 high and low-impedance microphone and pickup (guitar, accordion, etc.) can be directly connected. Electronic musical instruments, e.g. a electronic organ with a output voltage of 1 or 2volts must be connected to input 3. Inputs 1 and 2 have separate volume and tone controls. The volume controls are so sensitive when the microphone is connected only turn up so the shadow of the magic eye at normal levels of the microphone do not overlap. Control "level input" on the mounting plate of magnetic tape can be used for the 3 inputs to achieve voltage adjustment. However, the setting of this controller should only be changed if if this is really necessary.
2. There are 2 different voltages at the din output socket:
Between pin 1 and 2 0.01 0.05 V and
between pin 3 and 2 0.2 1V.
Pin 2 is grounded.
In most cases, the Echolette is connected to the pickup input connected to an amplifier. For this purpose, the higher output voltage between pin 3 and 2 used. only if on amplifier no pickup input (PU/Inst) is available.
If echolette is connected to a high-impedance microphone input use the output voltage between pins 1 and 2.

Connection of the remote control jack



Off-On



Continuously adjustable

A foot switch for switching off can be connected to the "remote control" socket of the reverberation or a controller for infinitely variable regulation of the reverberation can be connected.

B) Commissioning

1. The mains voltage selector must be set correctly.
The voltage corresponding to the mains voltage should correspond to the marking dot directly opposite. The voltage selector can be operated with a coin turn. The device is set at the factory to 220 V. At the tensions The fuse in the Echolette should be 110, 130, 150 V 0.3A slowblow against the supplied 0.6A slowblow fuse to be exchanged
2. The lid of the Echolette is to be opened and checked whether the tape is inserted correctly.
3. Press the "Reverb off" button.
4. Device by connecting the supplied power cord to the connect socket. The Echolette can now be put into operation by pressing the "Off On" button.

C) Adjustment of each sound effect.

1. The 6 larger control knobs on the front panel should move in are in the left end position. The button "Reverb short" is pressed.
2. With the upper controls 1, 2 and 3, the individual Infinitely variable control of recording heads. The mode of action can be as follows be shown or checked.
The "Reverberation time" control is in the left end position and pressed — causing playhead 1 to turn off. Of the Turn the reverberation strength knob to the right. With Knob 1 turned up now, so a refill is immediately after the the original sound is heard (shatter). See-Fig. 3.

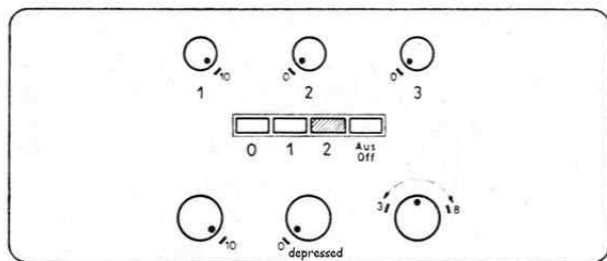


Fig. 3: Shatter setting example

Depending on the desired duration of the shatter or echo, the "Reverb short" or "Reverb long" button can be used. If control 2 is turned up, the lookup occurs a little later and even later when using Knob 3 (Echo). See fig. 4.

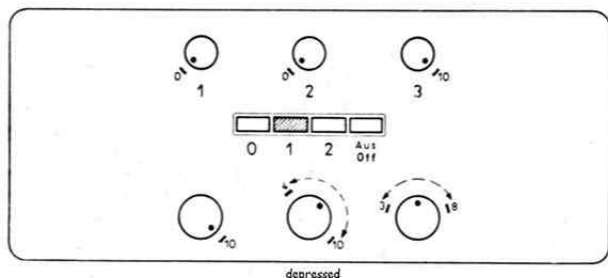


Fig. 4: Example of echo setting

If a larger number of echoes follow one another, then turn the reverb duration knob to the right.

3. Generally, a gradual decaying reverberation preferred, such as according to Fig. 5

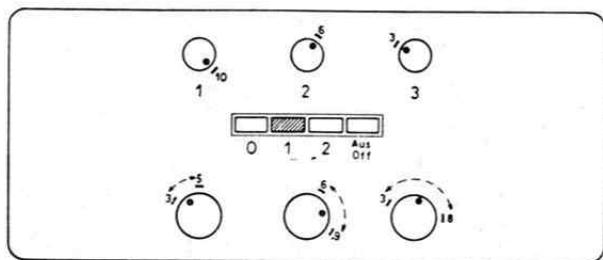


Fig. 5: Hall setting example

Long press the reverberation button.

Adjust controls 1, 2 and 3 so that the first one is loud, the 2nd softer and the 3rd reverberation can be heard even quieter. Thereon the individual echoes are reduced by the "Reverberation time so far" controller extended so that the reverberation fades away quietly. To "shatter" at To prevent reverberation, the 1st playback head is also through Drag the Reverb Duration slider. Turned on.

The correct setting of the echolette and the function of the The easiest way to check the transmission system is to do a short sound produced, e.g. B. by a single clap or by clicking into the microphone.

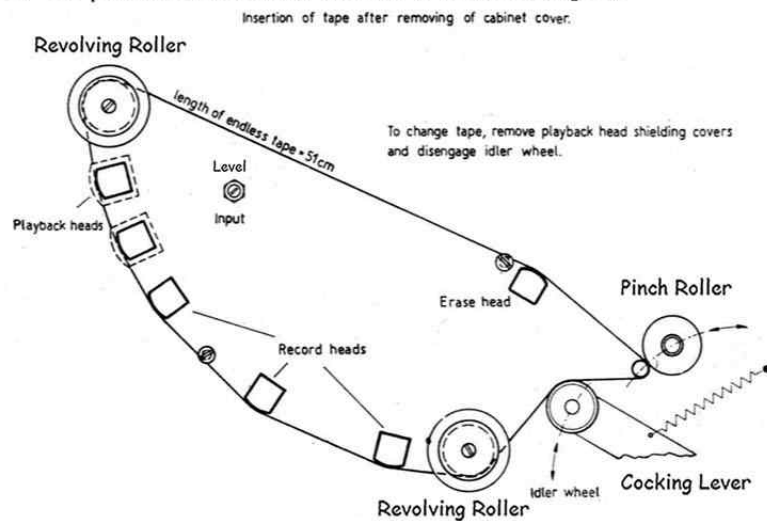
4. To create a very short reverberation (cellar effect), at the same setting of the controller, press the "Reverberation" button briefly.

D) Tape loop change:

The magnetic tape must be inserted with the device switched off.

(On Off button pressed.) When replacing the magnetic tape the shielding hoods of the playback heads must be removed by pulling up and replaced after the tape has been inserted.

When removing and inserting the tape, the tensioning lever (cocking lever) must be pushed back so that the belt is relaxed. (Fig. 6)



ECHOLETTE-VERTRIEB, 8000 Munich 45, supplies replacement tapes. (back in the '60s) Euro-Park, Ingolstädter Straße 77 and all Echolette customer service points.

E) Maintenance:

1. It is particularly important to ensure that the cooling of the echolette is sufficient. It must therefore not be placed on any amplifier that radiates the heat upwards. Nothing is allowed to open either the echolette are placed or placed (e.g. notes and the like), so that the heat dissipation upwards is not disturbed.
2. The lubrication of the revolving rollers should be done with graphite powder (pencil), but never with oil or fat. A lubrication must be carried out after approximately 500 operating hours. After the same the pressure roller and the magnetic heads should also be cleaned with spirit or petrol (?) cleaned.

F) Important notes:

In any case, the Echolette can be switched off by pressing the "On" button switched off, not by pulling out the mains plug. Becomes ctas device not switched off by the "On Off" button, so leads this will damage the pinch roller.

The Echolette NG 51 complies with the applicable safety regulations equipped with protective grounding and may only be connected to protective contact plugs put into operation with the protective contact cable supplied.

G) Interconnecting the Echolette NG 51 with the amplifier M 40:

1. Zurri operation with the M 40 amplifier is an echolette with a 5-pin output socket required.
2. Echolette and amplifier are connected with a 5-pin special NF cable via the 5-pin sockets marked "Output" tied together.
3. On the echolette is the red mark located on the back be sure to move the level control (R 46) to the left stop turn.

**This manual is a translation via Google translate of a German Language manual found here:-
http://www.peel.dk/Dynacord/S_NG51.html**

**It's a little clumsy in places as I don't speak German !
If you have the ability to provide a better translation and can leave it in the thread I will endeavor to revise this and upload it again.**

It contains two schematics, the original with front panel din sockets and one with jack sockets .