ECHOLETTE MK I

A Note From The Builder

We proudly present our new Echolette MK I amplifier, completely designed and assembled in Treppendorf Germany. Since you are now the new owner, please take good care of it, treat it well so it will be able to return the favor and make your guitar sound like never before.

We hope this manual will help you in keeping it in good condition and health.

SAFETY FIRST:

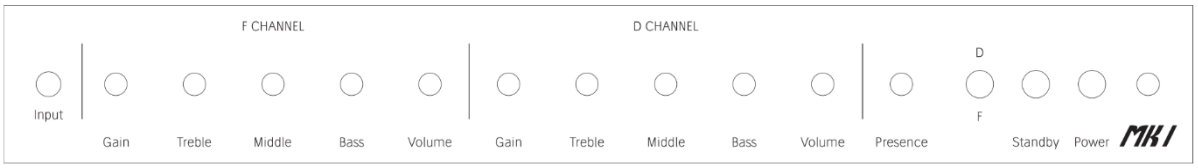
1. Read these instructions before first use of the amplifier.
2. Keep these instructions for later use.
3. Follow all instructions and warnings.
4. Do not use this device near water or in wet conditions, do not place any objects filled with liquid on this device.
5. Clean only with a dry cloth.
6. Do not block any ventilation openings to prevent overheating of device.
7. Do not place this unit near to heat sources.
8. Do not place this device on an unstable surface.
9. Always unplug device during lightning storms or if it's unused for longer period of time.
10. Protect the power cord from being walked on or pinched particularly at plugs and the point where they exit from the device.
11. Never turn amplifier on without connected speaker cabinet.
12. Refer all servicing to qualified service personnel. Servicing is required when the device has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the device, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

FEATURES:

1. All tube guitar amplifier
2. Power amp tubes: 2x KT66
3. Preamp tubes: 5x ECC83
4. AB push pull power amp with 35W output power
5. Possibility to use EL34 or 6L6 power tubes
6. 2 channels with independent controls for Gain, Treble, Middle, Bass, Volume
7. Presence control for both channels
8. D-Channel for sweet and dynamic overdrive sounds
9. F-Channel for warm and clean sounds with plenty of headroom
10. Serial FX Loop with send & return level (also works as master volume)
11. Speaker outputs for 1x 4 Ohm, 1x 8 Ohm, 1x 16 Ohm, 2x 8 Ohm or 2x 16 Ohm speaker cabinets
12. Hand built and designed in the EU

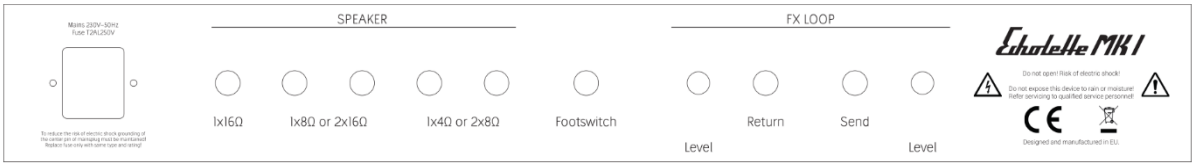
13. Dimensions (WxDxH): 57 x 26 x 25 cm
14. Weight: 17 kg

FRONT PANEL:



1. INPUT – connect your instrument here.
2. F CHANNEL – this is the clean channel section, it has a very rich and warm sound, a lot of headroom, stays clean even with extremely high output pickups and it works great with overdrive or distortion effects.
   2.1. GAIN – it adjust level of input gain to clean channel. Increasing of gain will result in higher volume and slightly more compressed sound.
   2.2. TREBLE, MIDDLE, BASS – 3 way equalizer allows you to adjust high, middle and bass frequency response of the clean channel. Initially you might want to set these 3 controls to 12 o'clock, see how it sounds and then adjust them according to your taste.
   2.3. VOLUME – adjusts the volume level of clean channel. Setting the volume to a high level will result in power amp overdrive. You might like this sound and might want to use it, which is totally fine, but it makes power tubes work much harder which will shorten their life.
3. D CHANNEL – this is where rock begins! Also known as drive, lead or dirty channel. It is very flexible and easily goes from perfectly clean tones, through warm crunch all the way up to massive rock sounds. It is also very responsive to the guitar being used, you will really hear the difference between instruments here.
   3.1. GAIN – this adjusts the level of input gain to the drive channel. You can easily use its full range, from almost clean tones around 8-9 o'clock, through crunch between 10 and 12 o'clock, ending in overdrive tones around 3 o'clock.
   3.2. TREBLE, MIDDLE, BASS – 3 way equalizer allows you to adjust high, middle and bass frequency response of the drive channel. Similar to the clean channel – try to set those 3 controls to 12 o'clock, see how it sounds and then adjust them according to your taste. However, it's worth pointing out that this equalizer works differently to the equalizer of the clean channel. Its range is not as wide and has a more subtle correction of tone.
   3.3. VOLUME – adjusts volume level of dirty channel. Setting volume to high levels will also lead to power amp overdrive. You will notice that if turning the level up will not increase the volume, but will increase distortion.
4. PRESENCE – this knob adjusts the high frequency response of power amp section. This setting will affect both channels and effects connected to fx loop.
5. CHANNEL SWITCH – lets you select channel F or D.
6. STANDBY SWITCH – this switch turns the amplifier on & off. It should always be turned on approx. 1 minute after power switch, which will allow tubes to be fully heated before high voltage is applied. Also it should be turned off shortly before power switch. Use of this feature during short breaks versus using the power switch will increase tubes life. Amp is fully working when standby switch is in upper position.
7. POWER SWITCH – main power switch, it turns the AC power on & off. When the switch is off the amp is completely shut down. This switch is ON in upper position.
8. POWER INDICATOR – when illuminated the Echolette is receiving power.

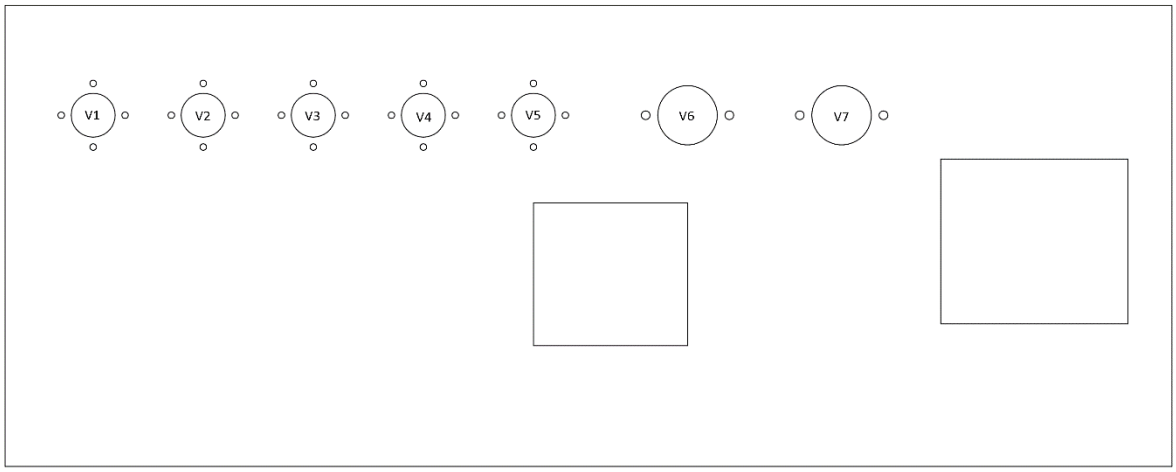
REAR PANEL



1. MAINS INPUT – this is where you plug power cable. Make sure that connector is plugged deep into this socket and is not loose. The main fuse is also situated here. The fuse is in the AC supply of the amp and will help protect the amp and user in the event of an electrical fault. If a fuse blows, it should be only replaced with a fuse in accordance with the listing of the fuse holder. If the amplifier repeatedly blows fuses, it should be checked out by a qualified personnel. Under no circumstances should a fuse of a different type, higher current rating, or a fuse bypass be used, as this could damage the equipment and present a serious safety hazard.
2. SPEAKER OUTPUTS – you can connect here speaker cabinet or cabinets. Please make sure that a speaker is always connected while the amp is working. Running the amplifier without a speaker connected will result in serious damage to the amp. Use one of 5 following speakers combinations, any other combinations are probably not a very good idea:
   2.1. 1x16Ω - this output is to use one 16Ω cabinet.
   2.2. 1x8Ω or 2x16Ω - these outputs are to use either with: one 8Ω speaker (outputs are parallel which means you can use anyone of them) or two 16Ω cabinets (due to parallel connection between outputs this will ‘look’ for amplifier like one 8Ω speaker).
   2.3. 1x4Ω or 2x8Ω - same rules as above, only numbers are different. You can plug here one 4Ω cabinet or two 8Ω cabinets.
3. FOOTSWITCH JACK – plug in connection for the footswitch. Any type of one toggle button footswitch should be compatible. When the footswitch is connected the channel switch on the front panel is disabled.
4. FX LOOP – here you can disconnect the preamp from the power amp and insert in that empty space some additional effect unit of your choice, to modify, improve or ruin your sound. All guitar effects will work here, that’s for sure, although not all of them will sound good. Effects like reverb, delay, chorus, flanger, vibrato, tremolo are very welcome here, overdrive, distortion, fuzz, wah wah not so much, they usually are used between guitar and amplifier. But of course feel free to try different combinations of effects to find your tone, maybe something that seems to be crazy and wrong to some people will actually sounds good to you. If you don’t want to use the fx loop, then you can adjust return and send level to 3 o’clock position, forget about it and focus on front panel of amplifier.
   4.1. RETURN LEVEL – it adjusts signal level send out from the effect loop to the power amp section. It also works as master volume.
   4.2. RETURN CONNECTOR – here you connect output of your effect or effects. In case you would want to cheat a bit, use external preamp and only the power amp section from this amplifier, this is place when you can plug your external signal source. Volume can be adjusted by return level. As soon as you plug a cable here, signal from amplifier preamp will be disconnected from the power amp section.
   4.3. SEND CONNECTOR – this goes to effect input. You can also use this output to send signal from preamp to external power amplifier. This will not disconnect preamp from power amp, signal will still go through.

4.4. SEND LEVEL – it adjusts signal level which will be delivered to external effect input or external power amplifier. It is important if you use effect which input don't like big signals and are easy to distort, then you can easily adjust the level of signal which goes into this effect and keep it away from distorting. But if your effect isn't causing you any distortion problems, you can adjust send level to 3 o'clock position and just leave it like this – it is optimal value for most guitar effects. After all, send level works also as master volume, so let's try to avoid too much confusion here.

TUBES PLACING



V1 – ECC83 High Grade or 7025 – input stage for both channels

V2 – ECC83 – second stage for both channels

V3 – ECC83 – third and fourth stage D channel

V4 – ECC83 – FX Loop

V5 – ECC83 – phase Inverter

V6, V7 – KT66 – power amp

A few words about tubes. V1 – V5 are all preamp tubes which are easy to exchange. Feel free to change them by yourself, there is no need for any adjustment afterwards, it is kind of plug and play, although some amount of precaution and care is required. **Before you start make sure that the amplifier is disconnected from AC line for at least 10 minutes!** To remove preamp tube first remove the metal cap and then gently pull tube up and simultaneously move the tube alternately to the left and right. To install a new tube the process is the same, only in reverse.

Any kind of ECC83 or 12AX7 or 7025 tubes can be used here. ECC81, ECC82, 12AY7, 12AU7, 12AT7 are also allowed, but they will decrease amount of gain on position that they are used. Make

sure that V1 is a good quality tube, this way you should avoid any problems with microphonic tube effect or unwanted noises.

Power amp tubes V6 and V7 are something for **users with electronic experience only!** Changing them requires opening amplifier chassis. Please do not try to exchange them if you don't know much about electronics or you just read something on the Internet. There are potentially deadly voltages inside of this amplifier **(up to 500V!!!)** which can be present even if it is turned off. This can be very dangerous for your life and health! Please refer to qualified personnel for power tubes exchange.

Although amp was designed to use with KT66 power tubes, it is possible to use other popular power tubes, such as EL34, 6L6 and 5881.

After every power tubes exchange bias adjustment is required.