Contact mic and EMW recording set

This chapter explains the different parts and uses of the Contact mic and EMW recording set available at the uitleen HKU.

- Recording set Parts

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Contact microphones

The set contains 2 kinds of piëzo-electric contact microphones. One with a solid metal housing and one with a small clamp. To avoid a thin 'tinny' sound the piëzo's have to be used in conjunction with an impedance transformer which is also contained in the set.

The metal contact microphone (fig. 1) Can be attached or sticked (with sticky gum) to resonating surfaces and objects made from metal, wood or other materials. The output gain is low, which makes it suitable for loud contactsound like industrial equipment, percussion and other music instruments.

The clamp contact microphone (fig. 2) It can be used for more delicate recordings of wind exited plants, fences and materials like paper. This typical microphone pick's up the sound in the ultrasonic range, so it can be useful for sound design source material to be pitched down.

The impedance transformer (fig. 3) This adapter is designed to match 50K output impedance to 200R input impedance. It is ideal for connecting a hi-Z instrument to a microphone input.

- Maximizes signal fidelity when using impedance mismatched gear
- Minimizes high frequency and level loss caused by signal reflections
- Eliminates noise and hum caused by an impedance mismatch

The input is a standerd jack plug and output a XLR connector.



(fig.1)piëzo-electric microphone in metal housing.



(fig.2) piëzo-electric microphone with integrated clamp.



(fig.3) impedance matching transformer for piëzo elements

Electro magnetic pick-up

The set contains a pick-up (copper coil with iron core) with a suction cup (fig. 4a). The pick-up can be use to record electric magnetic waves (EMW) emitted from electric devices or moving metal objects. The working principle is similar to an electric guitar pick-up. This pick-up has a small mono mini jack connector and can be connected to the big mono jack plug (fig. 4b). to work with some types of recorders.



(fig. 4a)



(fig. 4b)