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Triggering and synchronisation technology

- alarm function
- synchronisation
- automatic playback
- automatic language selection
- reset / Auto-Off

Soundgarden's triggering and synchronisation technology – developed in-house – provides a range of functions which can make a museum visit into a truly unforgettable experience.

In addition, this technical solution goes a long way towards simplifying device handling for museum personnel.

Number entry is not the only way to open audio tracks, images and videos on audio guide devices – this content can also be opened using automatic triggering technology.

This triggering technology is also applied to achieve the lip-synchronised playback of sound for videos as well as for use with interactive multimedia stations. As part of this, all audio tracks are stored in their entirety on the receivers, with a transmitter only sending the signal to (synchronously) trigger the content on said devices.

In addition, this triggering technology can be used for alarm-based security.

Thanks to automatic language selection, reset and auto-off functions, this solution makes audio guide devices even easier to use.

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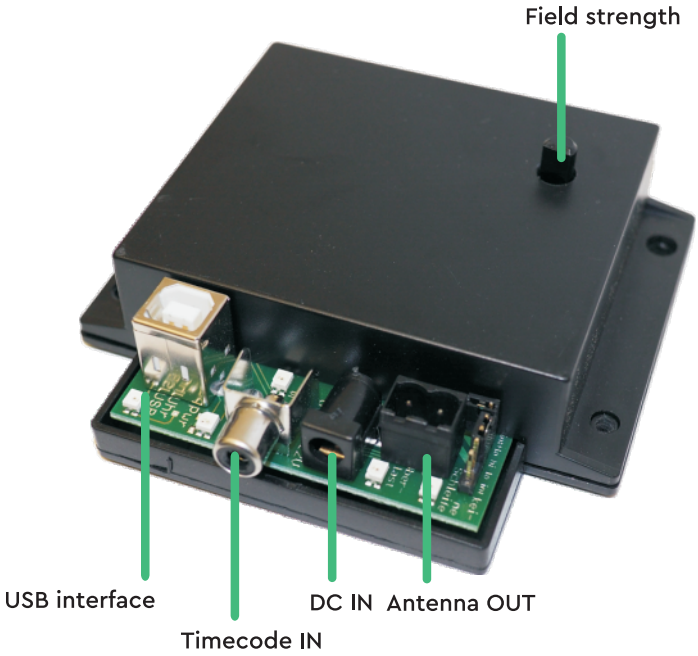
ID transmitter



Programming software (ID transmitter)

Components

Our triggering technology consists of an ID transmitter (dimensions: 10 x 9 x 3.5 cm), which is integrated out of sight into the exhibition architecture, and an individually produced loop antenna made of bell wire. The transmitter only requires an electricity supply, as well as an audio connection to the video or multimedia source for timecode information if synchronisation is required.

Signal

For lip-synched triggering of videos and media stations, a so-called timecode signal is transmitted via a magnetic field. After the audio guide has synchronised with the transmitter, playback is lip-synched. For automatic triggering processes which do not require synchronisation, the number of the audio segment and the signal to trigger it are transmitted via the magnetic field.

Magnetic field

The ID transmitter generates an electromagnetic field with an 8 kHz frequency via the antenna. Triggering takes places at 0.01 A/m, so an incredibly weak magnetic field is sufficient to initiate the audio receiver to begin playback. The field strengths we use correspond with those of audio induction loop systems for hearing-impaired visitors (EU Norm IEC 118-4), eliminating the possibility of any impacts on the health of personnel and visitors. If multiple visitors are located within the same field, no interference or interactions are caused by signal triggering.

Configuration

The triggering zone can be individually customised. A video's audio track can either be initiated automatically or after entering a number. The content can stop after leaving the triggering zone or continue playing until the end of the track. On re-entering the zone, the content can start from the beginning again or continue from the previous mark. The ID transmitter is programmed using software connected via the USB port

Language / Alarm / Reset / Auto-Off

Similar to the automatic triggering of audio segments, number codes are transmitted via the magnetic field. The audio guide recognises the code and carries out the pre-programmed action. This can be the automatic jump into a specific language directory or the triggering of an alarm sound. The devices can also be reset or switched off for transport / long-term storage. This action can be carried out for all devices at once, providing they are all located within the active magnetic field.