ACOUSTIC UNITS

for traffic lights

RTB

Mobility for the blind

In the 21st century, intelligent mobile societies leave no one behind. The needs of older people and the disabled are increasingly taken into consideration in road travel. Safe guidance over the roadway is an absolute must. Thanks to technological solutions for traffic light installations, blind persons and people with partial sight impairment can also actively take part in social life.

“BLX” acoustics from RTB take into account two further aspects that have recently emerged and proven to be very important.

The best protection for local residents

Whoever lives near an traffic light has the right to as little noise as possible. Thanks to the optimal sound wave directionality, the acoustics of RTB offer local residents unrivaled protection. In addition, the devices can be controlled depending on the ambient noise level.

High ease of installation

The signal manufacturing industry and municipalities are looking to install additional devices to a traffic light as quickly and easily as possible. In close consultation with practical specialists, a particularly affordable variant has been developed that can be socket-mounted directly on a mast.

Made in Germany

In the area of additional equipment for traffic lights, this German technology has prevailed on the market worldwide. Everyone involved can be proud that the product developments bearing the “Made in Germany” seal of quality have become an international standard over the past two decades.

The latest generation of RTB acoustics, with the product name “BLX,” will help to further spread German technology throughout the world. Due to the already predictable growth in unit sales volume, the devices can be offered on particularly attractive terms.

Technology & Usage

Standards and guidelines

Compliance with relevant standards and guidelines is documented by test reports and certifications from accredited test centers, including TÜV Rheinland (the German Association for Technical Inspection for the Rhine region). Testing was performed on the basis of type examinations. The product standards thereby define the requirements for functional and electrical safety, electromagnetic compatibility and acoustic properties. Among others, the following product standards have already been fulfilled; further specifications can be fulfilled at any time.

- CSA, MUTCD, NEMA TS1 + NEMA TS2
- DIN VDE 0832-100, or Hd638S1
- DIN VDE 0832-200, or EN50293:2012
- DIN 32981, bzw. ISO 23600:2007
- ÖNORM V 2100 and V 2101
- CEI 214-7

Standards require self testing by the signal transmitter for all safety-related operating values. Impermissible deviations lead to device locking, which can only be manually resetted. An important innovation is that the microphone/loudspeaker may not be covered up by passers-by. This is achieved by a mounting height of 2,10-2,50 m.

Technical information

Acoustic signals

- Pilot signal: 1.2 Hz ± 0.2 Hz pulsed sound with a range of approximately 4.5 m around the mast
- Release signal: Composite signal of harmonious frequencies, with a dominant base frequency of 880 Hz ±50 Hz
- Warning signal/gong: 392 Hz warning signal as per DIN32974
- Chirp
- Cuckoo
- And many more

Housing

- Polycarbonate material, available in the colors Green, Black and Gray
- Protection Class II as per DIN EN 61140
- Protection Class IP 55 as per DIN EN 60529

Voltage variants

- 230 VAC, and 160 V dimming function
- 110 VAC
- 40 VAC or DC, and 27 V dimming function
- 24 VDC

Internationally and individually deployable

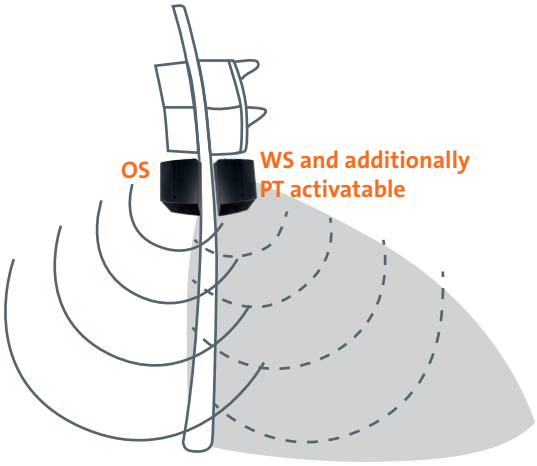
Nowadays, the acoustic units from RTB are in use around the world. Of course, they must be adapted to meet national requirements, for example, the standard acoustic signals or the power supply for a specific country.

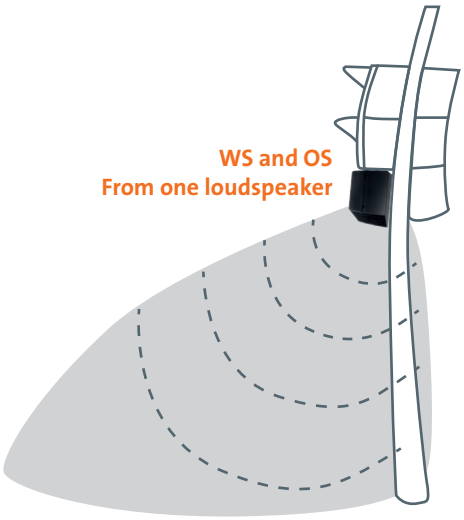
An important factor everywhere is the automatic adjustment of the volume level in relation to the ambient noise level, as well as the flexibility of sound wave directionality according to the road width and other structural characteristics.

After installation, the remote control offers flexible configuration options for individual adjusting the signaling at the crossing.

Various customized features can be implemented through optocoupler inputs and outputs. These include, for example, a shutdown at certain times of the day or a volume reduction at night.

Variants





Versatile device types

RTB has gradually expanded and refined its performance and product range. With the fifth generation of acoustic units, municipalities have access to a system that can always be recombined and set up to meet individual needs thanks to its modular construction design.

Single devices

Single devices have their own electronics and a separate loudspeaker. Both the walk signal (WS) and the pilot signal (PT) are available as single devices.

Combined devices

The combined devices are impressive because of their cost-saving combination of walk and orientation signal. The values for the walk and orientation signal can be freely adjusted for these devices, as well.

Single device BLX FTM

The BLX FTM acoustic device is a single device for the generation and output of the walk signal. This is defined by the respective standard of the country or as requested by the user. It is active during the pedestrian green phase and continues emitting up to the middle of the crosswalk. The volume is determined by the length of the walk.

Single device BLX PT

The BLX PT acoustic device is a single device for the generation and output of the pilot signal (orientation signal). The pilot signal indicates the position of the system to blind persons. It is emitted all around the mast and directs the user to proceed toward the mast. The pilot signal also adapts to the ambient noise level and its values can be freely adjusted.

BLX Kombi

The combined unit consists of two loudspeakers that separately emit the walk and the orientation signal. The major advantage: the device requires only one electronics system.

BLX Kombi-S

The BLX Kombi-S has an electronics system and a loudspeaker that emits both signals toward the pedestrian crossing. We recommend the combination with the push-button Plus PiT.

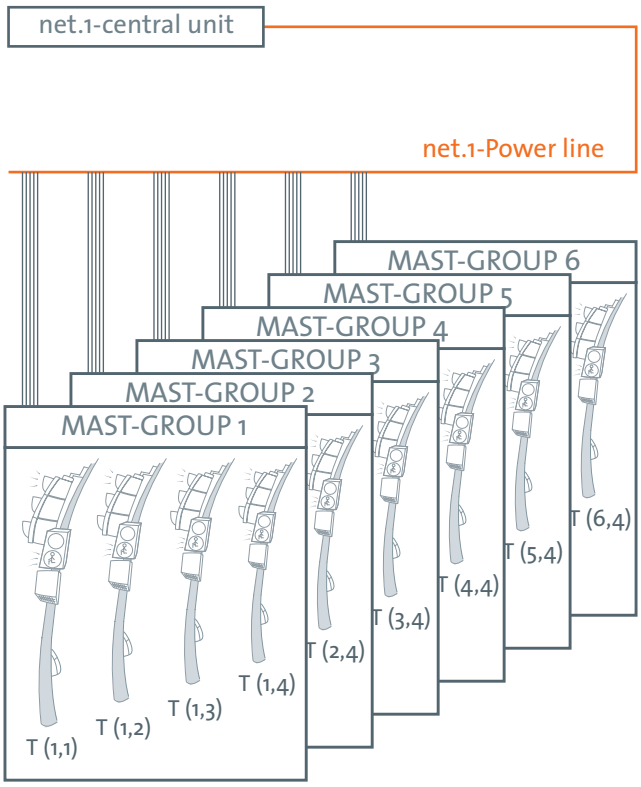
Kombi-200

The Kombi-200 contains the entire electronics system (including loudspeakers) in an additional optical signal housing. This solution is suitable for traffic light signal systems that only offer minimal space for an acoustic unit. In addition, the 200 Series also includes single devices to output the release signal (FTM200) or the pilot signal (PT200).

BLX Gong

The BLX Gong emits an acoustic warning signal to indicate dangerous points. It complies with the requirements of the DIN 32974 standard (Acoustic signals in a public area).

Options



net.1:
Economical retrofitting

Until now, several wires were necessary in order to produce the various acoustic signals for traffic light signal systems (including the walk signal, orientation signal and a tactile signal). Making this effort for older systems often meant that the costs were unfavorably high in comparison to the benefits.

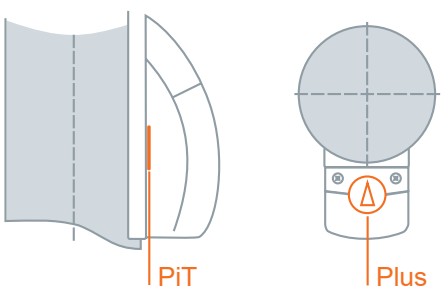
This problem has been solved by net.1 with an intelligent fieldbus. Both the electricity supply for the push-buttons and acoustics and the transmission of selected control signals is handled via a separate signal-conducting wire between the outside unit and the control unit, which can even be wired in a line topology. Expensive underground work therefore becomes unnecessary. The effective usage of existing underground cable networks is thus possible: This makes the retrofitting of existing systems even more attractive.

LOC.id:
Guidance for the blind with perfect protection for local residents

LOC.id is the name of the bluetooth-based system that is particularly useful in the vicinity of traffic light signal systems or where passenger information is communicated. It makes use of a free app that acts as a transmitter for blind or visually impaired persons. Alternatively, a handheld device is also available. When the user approaches a system equipped with a receiver, the device is detected and a raised orientation signal is emitted. All settings are fully customizable. The system still issues an acoustic signal indicating that it is safe for the pedestrian to walk. Since the green phase may be very short, LOC.id can be used to extend the walk signal, which will benefit especially people with disabilities. This ensures a safe crossing!

In order to fulfill the desire for a standardized solution for all needs and enable deployment everywhere, RTB is opening the interfaces to interested companies. The goal is that blind and visually impaired persons will only need one app when they are on the way.

Options



Push-buttons: Intelligent combination

The combination of an acoustic system and push button also offers a wide range of benefits, especially when a traffic light signal system is properly equipped to effectively assist the blind.

Push button Type PiT

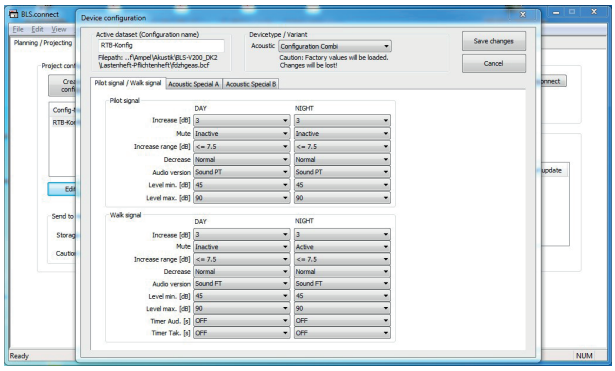
With PiT push-button, the pilot signal is actuated via the central electronics of the acoustic unit. Users simultaneously hear the pilot signal from the loudspeaker and the push-button, so that it is even easier to find the traffic light mast.

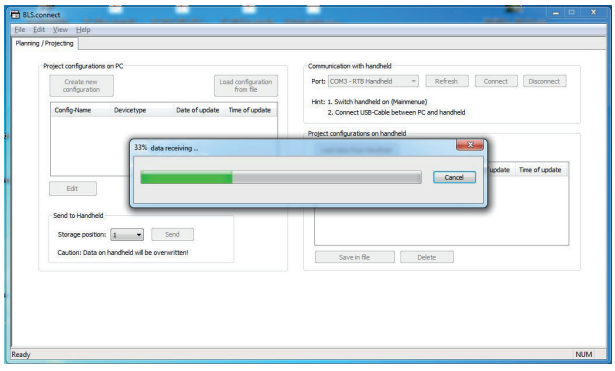
Push button Type +

With the Plus push-button, the vibration element of the push-button is controlled by the electronics of the acoustic unit. This development makes it possible to further reduce the cost of a traffic light signal system.

Easy adjustment via remote control or software

Using the infrared remote control, it is possible to individually configure all devices. This makes it possible to regulate all device parameters, such as the adjustment of the volume to the ambient noise level, minimum and maximum volumes, drop-off rate or special solutions such as for nighttime operation. Adjustment by the technician is also made easier by the built-in microphone, which makes it possible to measure the current volume of the signal transmitter. The remote control is also used to configure net.1.





The BLX.connect software is a tool for configuring, documenting and analyzing the RTB acoustic signal transmitter consequently. Signaling for the blind and visually-impaired by a traffic light signal system can be easily configured in advance on a PC. Transmission of the configuration is also carried out using the remote control, so no laptop needs to be used outdoors. In addition, the diagnostic tool makes it possible for RTB to offer an improved and speedy RTB service.

DIFFERENT than the OTHERS!

This is the premise we work on. We want to attract your attention with innovative strength, the highest quality and an excellent service. User-friendliness of our products and customer orientation are most important for us. We are doing everything for a reliable, partner-like cooperation.

Drawing on many years of experience, RTB develops, produces and sells innovative solutions for road traffic. In addition to supplemental equipment for traffic light signal systems, radar and laser systems for speed reduction and certified traffic data recording systems, our product range also includes parking ticket machines, innovative systems for electromobility and effective parking lot management.

RTB

RTB GmbH & Co. KG
Schulze-Delitzsch-Weg 10
33175 Bad Lippspringe
Germany
Status 05/2019

Tel. +49-5252-9706-0
Hotline +49-5252-9706-22
Fax +49-5252-9706-10
Email info@rtb-bl.de
Web www.rtb-bl.de