Electronic Boom Barrier Operating instructions

Original operating
Instructions
- Keep for later use
The barrier should not
Be operated before these
Operating instructions
Are read and understood

General˚
These instructions are intended for the operator of the barrier, the personnel operating, installing and connecting it. In these instructions you will find references to transportation, installation and connection, operation, maintenance, servicing and technical data.
You can find information on repair and electricity in these instructions.
Please carefully work through these instructions before installation. Please comply with the safety precautions in particular
Liability/warranty
Liability or warranty is excluded
˙ if the precautions and operating instructions are not followed
˙ if the barrier is incorrectly operated
˙ if the barrier is not properly serviced
˙if safeguards are not used
˙if function changes of any kind are made without our written agreement

Description of the barrier
The barrier consists of a fixed base anchored on a foundation (on-site), mobile rejection beam and a remote control.

Control units, indicators and function description
The barrier has no control unit
The remote control has two buttons (a model with 4 buttons is optionally available). When a button is pressed, the barrier opens or closes. The light diode on the remote control lights up as an operation indicator when the button is pressed
The circuit board (in the battery case) has a red light diode which lights up when the battery is low.

Using the barrier
The barrier regulates entrance to a site (street, car park, courtyard).

Safeguards
If the barrier arm bumps into an object such as a car, a person, pram etc. when descending, it stops briefly and then moves back up. If it bumps against an object when being raised, it remains in position and switches off.
The barrier arm can be moved by hand in vertical position at any time. The drive disengages and the barrier arm remains in each position.
If the barrier arm is bumped into from front or back, it breaks off at a rated breaking point. The base with drive remain intact. The barrier arm should then just be replaced.

Test of the safeguards
Ensure that the barrier only operates when correctly installed and the base with barrier arm is not damaged.
Check the barrier at least once a week for
• prescribed condition
• secure clamping
• prescribed function
• disengaged drive if you raise the barrier arm by hand

If a defect occurs have it repaired by qualified personnel.

Workplaces
The barrier can only be opened and closed with accompanying remote control. The max. distance to the barrier base should be approx. 20 meters.

Purpose of use
Normal use
The barrier is designed to regulate entrance to a site (e.g. car park) or street/a path.
Normal use also includes following these operating instructions and complying with the prescribed maintenance conditions.

Abnormal use
Any excessive use is considered abnormal. The manufacturer is not liable for damage from abnormal use. The risk is borne by the operator.

Environmental protection
There is a battery on the base which has to be disposed of after the end of the barrier's deployment (final decommissioning, scrapping).

Safety
General precautions
For assembly, connection, operation and repair of the barrier the local safety and accident prevention regulations shall apply in each case. If they are not followed your personal safety can be at risk and you can suffer serious injury.

Personnel requirements
Assembly, maintenance and repair work should only be done by suitable qualified personnel according to the regulations. Failure to comply with this warning can lead to serious injuries.
Any person handling assembly, connection, operation, maintenance and repair, should have read and understood these instructions. Failure to observe these precautions can lead to serious injuries.

Work safety precautions
General precautions
Operators should ensure that
• the barrier is only used normally
• the barrier is only operated in perfect, functional performance condition and the safeguards especially should regularly be checked for their functional performance
• only sufficiently qualified and authorised personnel should maintain and repair the barrier

The relevant regulations and other generally accepted technical rules and standards should be complied with.
No safeguards should be dismantled or decommissioned. Safeguards provide protection from serious physical injury. Defective or non-functioning safeguards can lead to serious or fatal injuries.

Safety precautions for normal operation
• Refrain from any work procedure which damages the barrier. Unsafe work procedures can lead to serious or fatal injuries.
• If recognisable damage, defects or unusual noises or smells occur, immediately stop operating the barrier
• Ensure that no person stays in the swivelling range of the barrier arm when you activate the barrier

Risks from electricity
• All work on the barrier's electrical equipment should only be done by trained and qualified electrical operators
• For work on the barrier there is an electrical risk from short circuits/overloading which can also throw out molten particles
• Electrical equipment should never be cleaned with water or similar liquids

Failure to observe this warning can lead to serious or fatal injuries.

Warning of unauthorised changes
The manufacturer should be notified of retrofitting and changes. Unauthorised retrofitting or changes are not allowed for safety reasons.

Unauthorised retrofitting or changes allow the warranty to lapse and invalidate the EU declaration of conformity or manufacturer's declaration.

Transportation and storage

Transportation damage
When delivering the barrier make sure the packaging is intact. Check using the shipping documents whether delivery is complete.

Speak to our shipping department before you arrange a return.
Tel: +49 2932.477900

Please on no account send the barrier back to us unless requested.

Dimensions/weight

	Dimensions (L x B x H) (L x Ø)	**Weight**
Base	150 x 160 x 900 mm	14.5 kg
Rejection beam	1,000 x 60 mm 1,500 x 60 mm 2,000 x 60 mm 2,500 x 60 mm	0.5 kg 0.75 kg 1.0 kg 1,5 kg
Remote control	35 x 60 x 15 mm	0.03 kg

Storage
Packaging for the barrier is only provided for transportation and direct installation with the customer.

The barrier should only be stored in a dry space. For longer storage times additional preservation measures are necessary. If you have any questions about this, Urbanus will be happy to help.

Installation/assembly
General
WARNING
The barrier should only be installed by trusted persons who are informed about the risks. Failure to observe this warning can lead to serious injuries.

Installation
Install the barrier so that even when open there is enough space upwards for the rejection beam. Comply with the required distance from live wires.

Ambient conditions

Ambient temperature	Max. + 40º C min. - 20ºC
Storage temperature	Max. + 40º C min. - 5ºC
Vibration strength Frequency range 10… 150 Hz	Deflection: ≤ 0.075 mm with 10… 57 Hz Acceleration: 1 g with 57 … 150 Hz (according to EN 60068-2-6)
Prevention of electromagnetic noise fields	

Dimensions

Rejection beam (length)	**Barrier closed (H + B _+ D)**	**Barrier opened (H + B + D)**
1000 mm	900 x 1100 x 260 mm	1900 x 200 x 260 mm
1500 mm	900 x 1800 x 260 mm	2400 x 200 x 260 mm
2000 mm	900 x 2100 x 260 mm	2900 x 200 x 260 mm
2500 mm	900 x 2600 x 260 mm	3400 x 200 x 260 mm

Assembly
Installation
The base should be installed on a foundation (concrete, high-load anchor or plug, pitch 160mm)
• Place the base on the foundation
• Clamp the base vertically with the 4 piece M8 screws
Orient the base vertically (spirit level).

Assemble the barrier arm
• Push the barrier arm until it locks on the mount
• Ensure that the holes for the riveting in the barrier arm are above the holes in the mount

[Diagram]

• Push the four rivets into the holes of the barrier arm
• Drive in the pins of the of the rivets with a hammer.
WARNING
The barrier will not work if there is no barrier arm or it is too short/long. The prescribed length is on the barrier arm mount.

Insert and connect batteries
• Open the battery box with the key
• Close the connecting cable to the battery. Make sure the polarity is correct
• Place the battery as shown above in the battery box
• Close the battery box
The barrier is now ready mounted and ready for operating.

WARNING
When changing the battery: dispose of the old battery according to local regulations.

Dismantling
After the barrier's deployment is over it is dismantled (final decommissioning, scrapping).
• Dismantling occurs in reverse sequence to assembly
• Ensure the components are disposed of according to grade
• Dispose of the batteries according to local regulations

Operation
Opening and closing the barrier
• Before activating the barrier ensure that no persons or objects (e.g. cars) are in the range of travel

• Ensure that you are close enough to the barrier (max. distance 20 meters)
• Briefly press the remote control buttton
The barrier opens or closes.

The remote control has 2 or 4 buttons whose connection to several barriers is freely programmable (can be learned)
The upper left button is pre-programmed as standard.

In the event of defects
Commissioning in the event of emergency
In emergencies you can move the barrier arm upwards by hand up to vertical position.
If then you press the remote control button further, the barrier arm travels to the end position.

Barrier arm travels against an obstacle

If when closing the barrier arm travels against an obstacle, the barrier remains briefly in this position and then travels back upwards.
If when opening the barrier arm travels against an obstacle, the barrier remains in this position.
If you then press the remote control button again, the barrier arm travels again to an end position.

For no obvious reason the barrier arm stops or travels half way back when closed.
In this case you can adjust the HEX switch S2 a bit higher on the circuit board which defines the current limit.

[Diagram]

Battery is dead
If the cell voltage falls below a particular level, the battery adjusts its function and a red LED lights on the circuit board. The circuit board is at the top of the battery box.

[Diagram]

The battery should then be charged on the grid or replaced with a full battery.

Setup

Allocating remote control to barriers
The barrier is allocated a remote control as standard. A barrier can also be controlled by up to 25 remote controls (optionally available). Each remote control can control up to 2 or 4 barriers independently of each other. The connection of remote control and barrier can be learned. It is stored on the circuit board and can be deleted again on request.

Example
A car park with 2 entrances. Each entrance has two opposite barriers for entrance and exit. A remote control with 4 buttons can individually open and close each barrier for up to 25 people with access authorisation with its own remote control.

But it is also possible to open and close all (any number of) barriers with a remote control button.

Connection of barrier and remote control button then has to be learned for each barrier.

Deleting the memory of the circuit board

• Open the battery box
• Press key S1 1 x. The LED blinks for 12 seconds.

[Diagram]

• Within the 12 seconds press key S1 and hold down until the LED turns on and off;
• Release the S1 key. The LED blinks 5x.
All accessories of the circuit board are now deleted.
Individual accessories cannot be deleted

Mastering accessories
• Press key S1 (for channel 1 of the circuit board). The LED blinks for 12 seconds.
• Press the desired remote control button within the 12 seconds. The LED lights up and then goes out.
This concludes the learning process.

If you wish to learn how to use other remote control buttons with the same barrier, for each button you must select another channel of the circuit board (max. 4).
For channel 2 press key S1 2x. the LED blinks twice for 12 seconds. For channel 3 press key S1 3x. for channel 4 press 4x. The LED then blinks accordingly. During this time press the desired remote control button.
If within the 12 seconds no remote control button is pressed the process is aborted.

If the remote control button is already linked to the circuit board, the LED lights up three times in succession and the new allocation is not possible.

Maintenance
WARNING Any maintenance work should only be carried out by trained and qualified personnel. Failure to comply with this warning can lead to serious injuries.

Cleaning
• Clean the barrier at regular intervals with a damp cloth and perhaps with some washing-up liquid. Do not use any solvent or abrasive cleaner which could affect the surface.
• If needed replace the fluorescent strips on the barrier arm.

Replacing the battery

See above “Inserting and connecting batteries”

Replacing the battery in the remote control
If the indicator light on the remote control does not light up when you press a button, the battery should be replaced.
• Remove the screw on the back of the remote control
• Open the case of the remote control
• Replace the battery with another one of the same size and voltage (23A 12V). Make sure it has the correct polarity
• Then close the case again and secure the back with the screw
• Dispose of the old batteries according to local regulations

Repair
WARNING Any repair work should only be carried out by trained

and qualified personnel. Failure to comply with this warning can lead to serious injuries.

Repair work should be carried out in the plant. If necessary send us the entire barrier.
If only the barrier arm is broken, this can be replaced by a qualified person. For this the impact rivets should be removed (bored) and a new barrier arm of the same length assembled (see “Assembling the barrier arm” on page 15).

Annex
Technical data

Operating voltage	6 V DC
Frequency (remote control)	433 MHz
Operating range in the	Approx. 20
open air	m.
Control voltage	6V DC
Power consumption	12 W

Technical customer service
Our service is available from M-F from 8 a.m. to 4 p.m.
Tel: 02932.477900
Fax: 02932.477104
info@urbanus-design