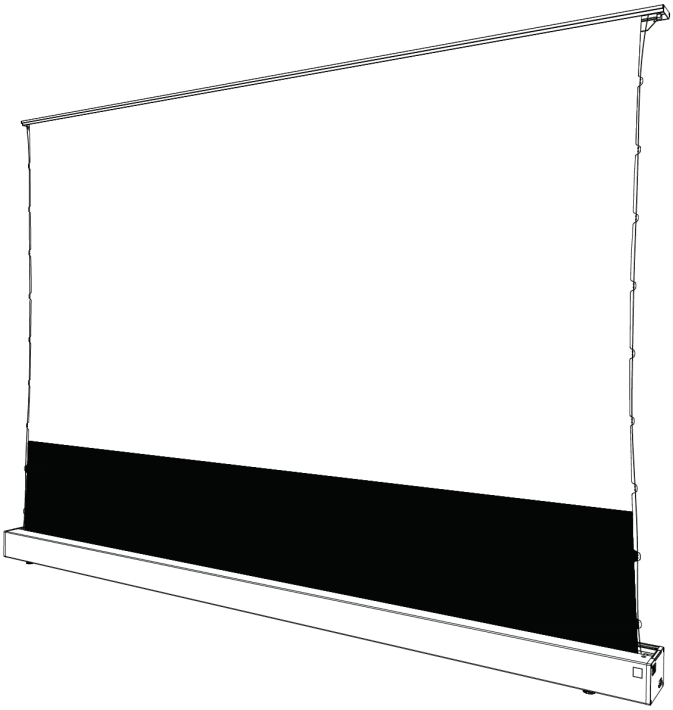
celexon™

Smart Ideas for the bigger picture.

Operating instructions

celexon HomeCinema CLR UST High Contrast Floor scissor screen - V2.0



Thank you for purchasing this product. For optimum performance and safety, please read these instructions carefully before connecting or operating this product. Please retain these instructions for future reference.

Version: 32424_021

WARNINGS

These operating instructions are intended to familiarise you with the operation of this product. Keep this manual in a safe place so that you can refer to it at any time.

- Before installation, please refer to the enclosed data sheet for further safety and use instructions.
- Do not begin installation until you have read and understood the complete operating instructions.
- Carry out the installation with the help of another person to ensure a safe installation.
- Remove the product from its packaging and remove all packaging material. Make sure that no packaging material is on or in the product. If you notice any damage to the packaging, also check whether there is any damage to the product. If you notice any external damage to the unit or any unexpected or unusual functioning, do not use the product any further. Contact the dealer immediately from whom you purchased the product or celexon directly (Web: www.celexon.co.uk, Mail: info@celexon.co.uk) for further information.
- To ensure trouble-free operation, the product may only be used indoors, it is NOT suitable for outdoor use.
- The use of the appliance and accessories is forbidden to children under 16 years of age.
- Ensure that no children play with the appliance or are in the vicinity without supervision.
- Conversion or modification of the product impairs product safety.
- **Caution: Risk of injury!** Never open the product without authorisation. Never carry out repairs yourself!
- Do not use the product near gas or water appliances or in a dusty environment.
- Handle the product with care. It can be damaged by knocks, blows or falling from even a small height.
- Keep the product away from moisture and heat.
- Never immerse the product in water or other liquids.
- Only use the product as intended. Any other use may result in damage to the product or its surroundings.
- Children should not use or play with the screen unsupervised.
- **Caution: Risk of injury!** The device closes flush and tightly when retracted. Keep fingers, hands or other small parts away from the opening.

- All supply lines and cables must not be subjected to additional loads and must be laid in such a way that they are not damaged or crushed.
- Please position the screen so that there is no wind so that it cannot fall over. The screen is approved for indoor use only.
- Failure to follow the above instructions may result in personal injury and damage to the product or equipment connected to it. Incorrect installation or use may also invalidate the warranty.
- If you are unsure about the use of the product, please contact your specialist personnel, your dealer or celexon directly (Web: www.celexon.co.uk, Mail: info@celexon.co.uk).
- Technical changes and errors excepted.

The manufacturer accepts no responsibility for damage to property or personal injury, if the screen is used outside the recommended specifications, or improper installation. **Do not use this screen near heaters or air conditioners. Do not install or use the product in direct sunlight or in front of a window.** Due to the temperature-sensitive PVC surface, this may cause permanent damage to the projection screen surface.

We recommend that you wait approx. 2 hours after delivery before installing the screen.
This allows the screen to acclimatise. Wait approx. 24 hours if the screen is moved from a particularly cold to a warm environment (or vice versa).

Please **avoid any stains on the surface of the screen**. It may not be possible to remove these.
The **positions of the end points on the motor are already set** at the factory and may only be changed minimally (see page 15).

DISCLAIMER

The information in this document is subject to change without prior notice by the manufacturer. Changes will be added in subsequent versions of this manual. Errors excepted.

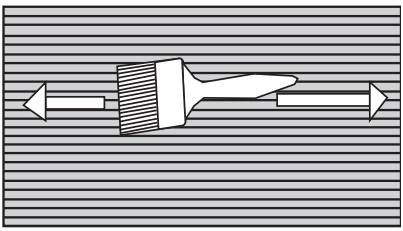
IMPORTANT NOTES ON CLOTH CLEANING AND CARE

Do not use a cloth for cleaning!

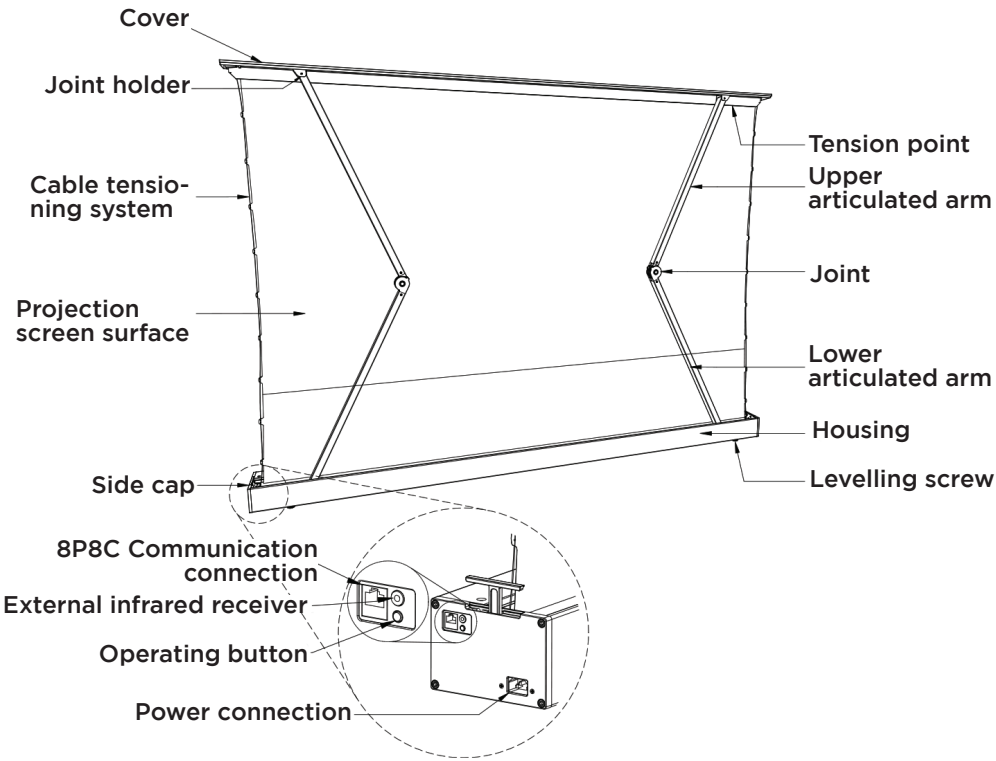
This cloth material is particularly sensitive to contact with hands or greasy, damp objects. This is due to the texture or cloth surface structure that characterises the way this high-contrast ultra-short distance screen works.

The fabric has a perceptible 3D surface structure, which allows the focussed projection light exclusively from a steep angle from below (UST projector position) to the viewer‘s sitting position (eye at maximum height of the centre of the projection surface or tends to be further below).

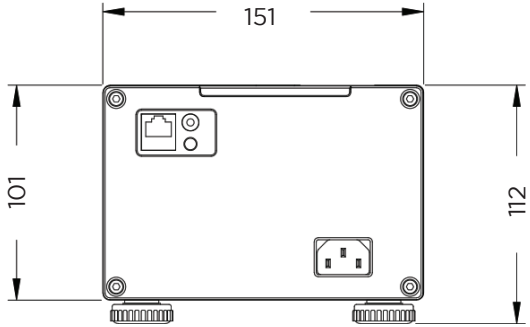
- The screen should be retracted into the housing after each use in order to achieve a long service life.
- Stains from insects or other (organic) substances may be difficult or impossible to remove.
- Do not use a cloth to clean the screen!
- Do not rub the canvas with your hands or fingers!
- Only use the enclosed fine hair brush to clean the screen horizontally along the surface structure with light pressure on the fabric (there must be no deformation!) to remove any fine dust or particles.
- If there are particles on the screen that do not interfere with the projection image, ignore them. If particles prove to be disturbing in the projection and cannot be removed by gentle, horizontal brushing, use a tesa® strip to remove the particles.
- Prevent the screen from being retracted and extended for 3 minutes at a time. This activates the motor‘s heat protection and deactivates the screen completely. Only after a rest period of 5 - 10 minutes can the screen be put back into operation.



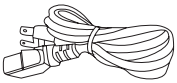
PRODUCT OVERVIEW

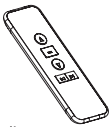


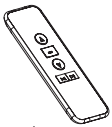
Side view



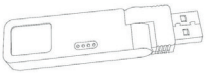
SCOPE OF DELIVERY


1x Power cable

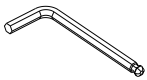

1x Radio remote control (RF)


1x Infrared remote control (IR)

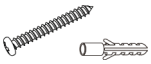

1x Infrared Eye

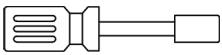

1x Radio USB trigger


2x Adjustable mounting bracket

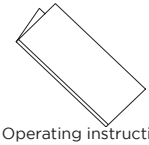

1x Allen key


1x Cleaning brush for projection screen surface


10x 5x40 mm screw + dowel


1x Socket screwdriver


1x Adjustment tool (4 mm)


1x Operating instructions

TECHNICAL DATA

Voltage:	230 V, 50 Hz	
Consumption:	140 W (MAX) 0,4 W (Standby)	
Control:	Infrared remote control	3V / 2 x CR2032
	Radio remote control	3V / 2 x CR2032 / frequency: 868 MHz / Transmission power: max. 10 mW / 15 m range
	Radio trigger	2,0 - 3,3 V / Frequency: 868 MHz / Transmission power: max. 20 mW / Current connection: 20 - 30 mA
Temperature:	During operation	16°C to 30°C
	During storage	10°C to 30°C (Short-term under- or overheating is possible, with subsequent acclimatisation of 24 hours before renewed use.)

INSTALLATION NOTES

Install the screen in a position that is clearly visible to all viewers! The optimum installation height corresponds to the position of the viewers eyes when the screen is extended: eye level = lower third of the screen. Install the screen straight and levelled, otherwise there is a risk that the screen fabric will be rolled up and unrolled at an angle. The screen must only be installed so that the screen fabric extends vertically from the floor upwards! Use suitable dowels and screws for the mounting surface. (If necessary, obtain suitable mounting material). With this screen you have the option of choosing between different mounting options.

BEFORE INSTALLATION, pay attention to where your ultra-short throw projector will be and where the image will appear on your wall in order to adjust the correct position of the screen accordingly. It is advisable to test the projector in its planned position in advance and adjust it to the desired image size (100“ to 120“).
With increasing size, the image moves upwards!
The distance between the projector and the wall surface on which you are casting the test image then corresponds exactly to the distance from the projector to the screen surface. The image height must also be observed exactly.
Now measure the dimensions of your screen and calculate the planned position of the screen on your wall or the back of your furniture so that it matches your projection image.

Attention: Attachment to a furniture back panel can only be carried out securely if the furniture has sufficient material thickness in the areas where the brackets are to be mounted and it is sufficiently solid.
Four screws must be used per bracket to ensure a stable and permanently secure installation!
If you are unsure, ask at the specialist store where you purchased your furniture or, if in doubt, only use the attachment to a load-bearing wall with dowels and screws that are suitable for your specific structure. The enclosed assembly materials are exclusively suitable for installation in solid supporting structures (concrete or solid brick). Help can be found in specialised DIY stores or from trained installers.

MOUNTING ON THE WALL OR ON A FURNITURE BACK PANEL

Mark an „installation line“ at the height at which the screen is to be positioned later.
The „installation line“ corresponds to the lower edge of the screen housing or the upper edge of the brackets.
Mark the centre of the screen on the installation line (Fig. 1). The distance between the two mounting brackets (centre-centre of the brackets!) must be the distance A (see table). Accordingly, the two brackets are located to the left and right of the centre mark on the screen. Mark this exactly the same on the installation line.

Size (diagonal)	100” (16:9)	110” (16:9)	120” (16:9)
Distance A (mm)	1.920	2.020	2.240

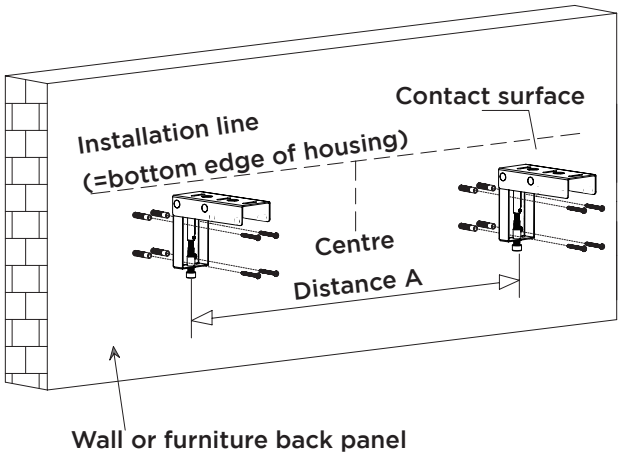


Fig. 1

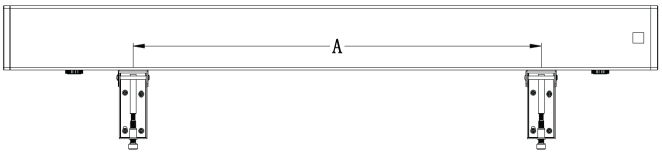


Fig. 2

Attach the mounting brackets each with the enclosed 4 screws (5x40 mm) and 4 dowels to your solid concrete or solid brick wall. (Fig. 1) For other load-bearing structures use suitable mounting accessories! If you are unsure about the correct and safe attachment to your supporting structure (e.g. wood, plasterboard, hollow brick wall etc.) have the installation work carried out by a specialised installer!

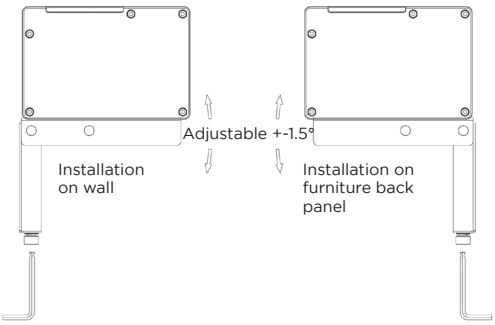


Fig. 3

INSTALLATION OF THE SCREEN

Now use 2 people to carefully place the screen carefully onto the support surfaces of the mounting brackets, so that the power supply points to the right-hand side. Slowly lower the screen and check the stability of the mounting brackets on your wall. Align the locking screws parallel to the wall/furniture beforehand so that they fit into the grooves in the screen base. Tighten the nylon nuts on the thread of the locking screws underneath the mounting brackets hand-tight. In doing so the locking screw is rotated by approx. 90 degrees and fixed in the screen housing to prevent the screen from falling down. (Fig. 4)

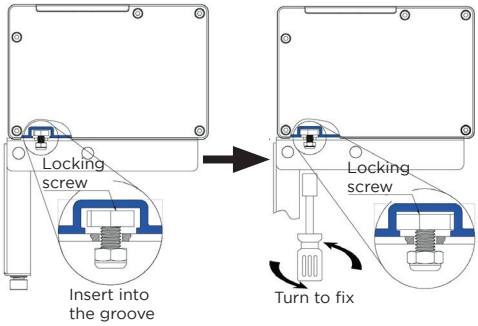


Fig. 4

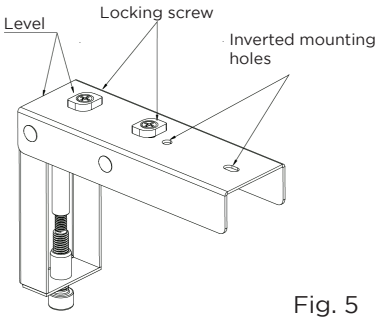


Fig. 5

Now that the screen is in its final position installed on the brackets, connect the power supply to the screen and extend the fabric completely. Now check the angle between the screen and your wall and use the Allen key to tighten the adjusting the adjusting screws on the two L-brackets until the fabric is optimally straight and parallel to the projection. In doing so you can adjust the angle up to +/- 1.5° (Fig. 3).

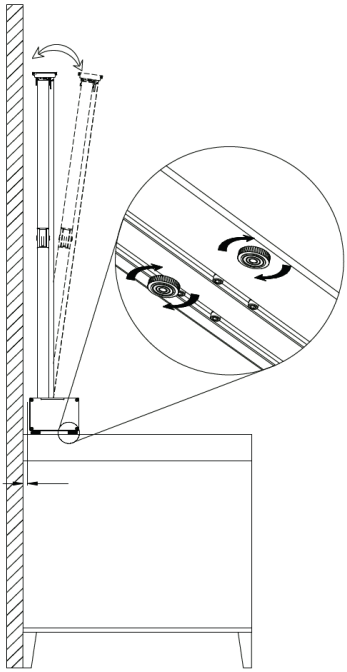


Fig. 6

SETTING UP THE SCREEN WITHOUT A BRACKET

You can also place the screen free-standing on the floor or on furniture. Carefully set the screen down using the transport handles on the side. There are 4 levelling feet on the underside of the screen. Align the screen horizontally in all directions using the levelling feet. The image should always be aligned using the adjustment options on your projector first.
If necessary, you can also correct the image alignment using the levelling feet of the screen. All 4 levelling feet must always be in contact with the floor.
Note: If you do not need the levelling feet for reasons of space in your installation, you can unscrew them completely from the housing.
Ensure that the screen is always level and rests on the outer and centre support points or adjustable feet.

This completes the basic installation of your screen. Finally, check again that all parts to be fastened are tight (hand-tight, no cordless screwdriver!) and the screen is secure and the brackets are firmly attached to your supporting structure.

OPERATION

This screen has 6 control options:

1. Housing button, manual switching cycle
2. Wireless USB trigger
3. Wireless remote control
4. Infrared remote control
5. Potential-free control
6. RS485/ RS232 control

CONTROL VIA THE CONTROL BUTTON WITH MANUAL SWITCHING CYCLE

The button for the manual cycle is located on the end cover of the power supply side of the housing. Pressing the button (again) the screen will raise, pause, lower, stop and raise again. One button for each function in endless loop.

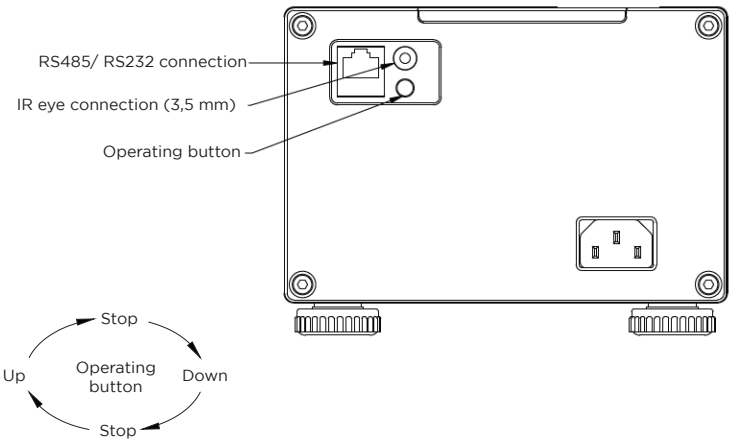


Fig. 7

CONTROL VIA THE RADIO TRIGGER

The code pairing of the radio trigger has already been successfully carried out at the factory.
The radio trigger controls the screen depending on the power status of the devices connected to it. You can connect the trigger to a USB output of your projector, provided that these outputs are switched off when the device is switched off. (Alternatively, you can also use any other device with a USB output, as long as it is also always switched on and off in parallel with the projection). Your screen will now automatically switch up and down in line with the switching status of your projector.
Please note: There are some devices that do not have a sufficient power supply at the USB outputs in standby mode, in which case the trigger function may not work or not work correctly with the screen. It is therefore also possible that the shutdown of the screen is triggered with a delay of a few minutes.
Attention: If the radio trigger is connected to a device that is already switched on, the screen may start up immediately.

CONTROL VIA THE REMOTE CONTROLS

The screen is supplied with an infrared remote control and a radio remote control. Make sure that any protective film has been removed from all transmitter and receiver devices, the batteries are inserted in the remote controls and the screen is connected to the power source.

USE OF THE RADIO REMOTE CONTROL (RF)

The use of a RF remote control is always recommended if there is a large distance between the remote control and the screen, or several objects obstruct the line of sight between the remote control and screen. The radio remote control is already programmed and can be and can be used immediately.

The remote control can also be used to reliably control the screen if it is installed in furniture, for example, and a clear view of the infrared eye is not possible or not desired.
Please note: The radio remote control can also control devices through walls (i.e. from other rooms), whereby you do not have a view of the screen to control the extension or retraction. You should always ensure that you can see the screen when it is being operated (i.e. extending or retracting), to avoid possible malfunctions or injuries to third parties.

Up: The screen extends upwards.
Stop: The fabric movement stops.
Down: The fabric retracts downwards.
Up (fine): The fabric moves minimally upwards.
Down (fine): The fabric moves minimally downwards.

USE OF THE INFRARED REMOTE CONTROL (IR)

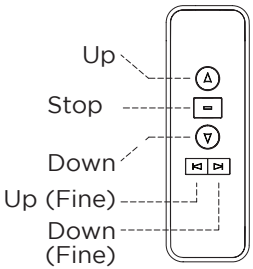
The use of an IR remote control is recommended if there is a small to medium distance between the remote control and the screen. The IR remote control can only be used if the supplied IR eye is positioned within the viewing range of the remote control.
You can control your screen with the IR remote control if the IR eye on the right-hand side of the housing has a line of sight to the IR remote control. The infrared control can also enable simple automation via e.g. Logitech™ Harmony™ for example.

Up: The screen extends upwards.
Stop: The fabric movement stops.
Down: The fabric retracts downwards.
Up (fine): The fabric moves minimally upwards.
Down (fine): The fabric moves minimally downwards.

CODE PAIRING/DELETING OF THE RADIO REMOTE CONTROL

The radio remote control code has already been successfully paired at the factory. (Note: The infrared remote control generally does not need to be paired).

If pairing has been lost, to re-pair, disconnect the screen from the power supply for 10 seconds and then reconnect it to the mains again. Within the next 10 seconds, press the Up and Stop buttons on the wireless remote control simultaneously. If the process was successful, the motor moves forwards briefly and then back again. The code synchronisation is now complete. The cancelling process is carried out in the same process as code synchronisation. One status replaces the other with same procedure.



Radio remote control

Fig. 8

UTILISATION OF THE POTENTIAL-FREE CONTROL

The potential-free control is realised via the RJ45 connection with the lines 4, 5, 7 and 8. The assignment of the connection is shown in Figure 9.
The respective function of lines 5, 7 or 8 is triggered by pulse bridging with line 4.

Line	4	5	7	8
Function	Common	Up	Stop	Down

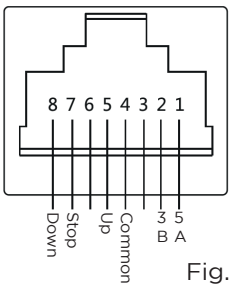


Fig. 9

USE OF THE RS485/ RS232 CONTROLLER

The RS interface is connected with an RJ45 (8P8C) plug, whereby lines 1 and 2 are the control lines. For the RS485 control unit Line 1 = D- and line 2 = D+. For the RS232 control unit, please refer to the description below:

RS485/ RS232 port settings:

- Baud rate: 2400
- Data bits: 8 bits
- Parity: None
- Stop bits: 1

Hexadecimal control codes:

- Retract: FF EE EE EE DD
- Stop: FF EE EE EE CC
- Extend: FF EE EE EE EE

Some controllers require an address code: FF EE EE EE AA

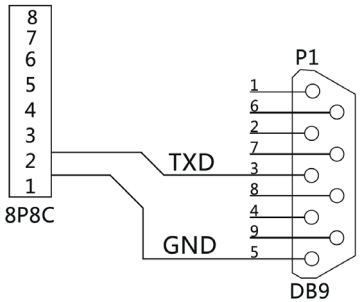


Fig. 10

Notes:

If the control function of the RS485/ RS232 connection does not trigger as desired, swap the two control lines 1 and 2. The resistance of the line loop should be less than 20 Ω. Do not lay the cable in the vicinity of strong sources of interference.

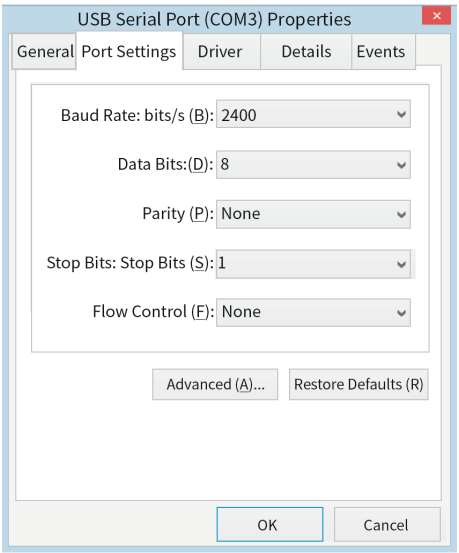


Fig. 11

SETTING THE STOP POINT / HEIGHT OF THE BLACK ADVANCE

Note: The black leader can be easily adjusted after the projector and screen have been positioned so that the projection image is aligned with the screen. Changing the adjustment of the black leader is only for fine correction and NOT to compensate for general height differences.
This must already be fundamentally adjusted when setting up the equipment (e.g. Height of the screen on your wall or rear wall of furniture, height of your projector on the sideboard or in a lower drawer / pull-out).
The cable tensioning system is designed in such a way that a concave cut of the projection surface on both sides from bottom to top ensures that the lateral tension is created over the entire length of the screen fabric and this is the only way to ensure a permanent flat position. If the fabric is shortened too much, this tensioning effect is no longer present over all areas of the fabric and unevenness or waves can form in the fabric, which then have a disruptive effect in the UST projection.
Defects caused by changing the factory-set fabric length are not covered by the guarantee.

Please observe the following general instructions during the adjustment:

- If the screen is extended and retracted too frequently, the heat protection circuit of the motor is activated and it takes approx. 5 - 10 minutes until the screen is ready to move again.
- Mark the adjustment tool so that you can read off exactly one revolution.
- One revolution corresponds to approx. 1 - 2 cm cloth height. Make a note of the rotations in order to be able to reset the screen back to its original position if necessary!

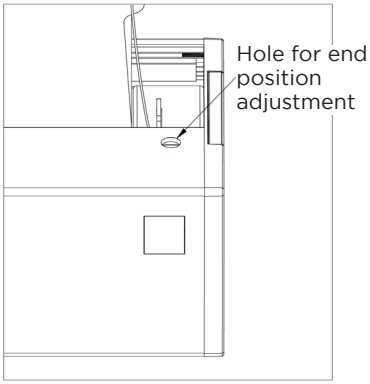


Fig. 12

Setting upper end position:

- Allow the screen to rise completely until it stops on its own.
- Use the yellow screw on the motor head to adjust the upper end position. Check the result after each adjustment of the adjusting screw, by retracting and extending the screen approx. 1/3.

  A. Upper stop position further down: To do this, turn the yellow screw **anti-clockwise**.

  B. Upper stop position further up: To do this, turn the yellow screw **clockwise**.

Lower end position setting:

- Stop the screen approx. 10 cm out from the housing.
- Use the green screw on the motor head to adjust the lower end position. Check the result after each change to the adjusting screw by retracting the screen. Immediately press the manual control button on the screen housing if the screen retracts too far into the housing, otherwise it may cause irreparable damage.

  A. Lower stop position further down: To do this, turn the green screw **anti-clockwise**.

  B. Lower stop position further up: To do this, turn the green screw **clockwise**.

- The adjustment is complete and the screen will now stop exactly at the set position.
- The standard advance is set at approx. 350 mm and must NOT be outside 300 - 400 mm in order not to negatively influence the flatness.
- Contact celexon if you have any questions about this setting, **before** changing the factory default setting.

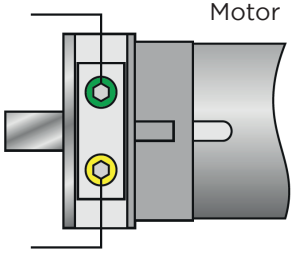


Fig. 13

PROBLEM SOLVING AND USEFUL TIPS

- The surface of the black grid fabric is provided with optical „grid teeth“, which enable a targeted reflection of the light beam from the ultra-short throw projector and form the image for the viewer. As shown in the schematic diagram: The screen particularly absorbs ambient light from above, the resistance to ambient light from the horizontal sides is weaker, please pay attention to the direction of the light beam when using the screen.

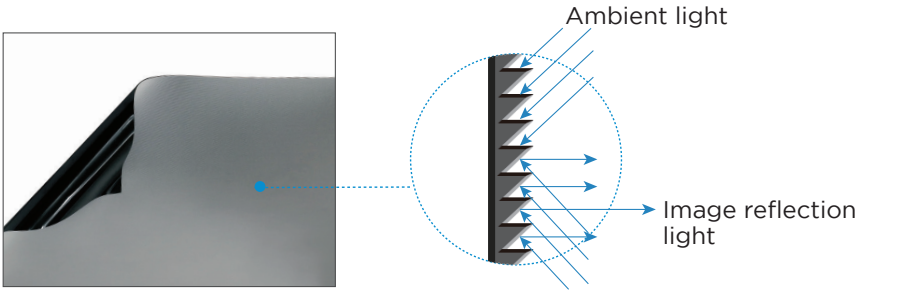


Fig. 14

- The screen is produced by splicing, and the splice line has a certain curvature due to the upper and lower tension which does not affect the projected image, which is a normal phenomenon.

Flatness of the fabric:

- The black lead must be in the range of min. 300 mm - max. 400 mm in order to maintain the flatness.
- Touch the cloth with your fingers as little as possible. The material is very sensitive and can only be cleaned to a limited extent due to its surface coating for the realisation of the special radiation characteristics. This is unavoidable due to the technology.
- Like all thermoplastics, the fabric is naturally subject to material deformation with decreasing or increasing room temperature. Slow temperature changes that affect the product as a whole, as they usually occur indoors, are harmless (e.g. as they occur when the seasons change).

Make absolutely sure that the product, especially the extended cloth, is not exposed to different temperatures at certain points. This uneven temperature effect would „stretch“ the material, as colder areas deform differently to warmer areas, making it very likely that ripples will form and your ultra-short throw projection will show distortions in the image. (e.g. due to sunlight, placed directly on radiators, at air outlets or air intakes of any air conditioning units, other heat-generating AV components such as AV receivers, games consoles or computers).

- Place the screen in the room in such a way that such temperature influences are not present. Even brief exposure to temperature can lead to deformation of the fabric and may be irreversible.
- Position heat-radiating devices in such a way that the air currents cannot affect the screen fabric!
- Only ever place (or store) the screen absolutely horizontally and levelled. Use a spirit level to check this. A crooked screen can have a negative effect on the mechanics, flatness and service life.
- Always ensure that the extension area is and remains free of obstacles.
- Do not place any objects on the opening or near the opening area.
- Prevent any liquids from getting near the screen! The ingress of liquids (e.g. watering flowers, flower vases, etc.) will have a negative effect on your product and can destroy the electronics of the product!
- Only extend the screen if it is standing on a solid surface or has been properly screwed onto the enclosed mounting brackets.
- If you want to place the screen and your projector on a sideboard hanging freely on the wall, make absolutely sure that the board is adequately secured to the wall for the additional load!

INFORMATION ON EU CONFORMITY

Manufacturer: celexon Europe GmbH
Adress: Gutenbergstraße 2, 48282 Emsdetten, DE
Product name: celexon HomeCinema CLR UST High Contrast Floor scissor screen - V2.0

Hereby celexon Europe GmbH declares that the celexon HomeCinema CLR UST High Contrast Floor scissor screen - V2.0 complies with the directive 2014/53/EU. The EU declaration of conformity can be downloaded from the following address: www.celexon.de/zertifikate

The symbol indicates the separate collection of electrical and electronic devices in EU countries. Please do not throw the device into household waste. Find out about the return system applicable in your country and contact your local authority or your local waste and pollutant collection point if you have any questions about the disposal process.

INFORMATION ON UK CONFORMITY

Manufacturer: celexon Europe GmbH
Adress: Gutenbergstraße 2, 48282 Emsdetten, DE
Product name: celexon HomeCinema CLR UST High Contrast Floor scissor screen - V2.0

Hereby celexon Europe GmbH declares that the radio equipment type celexon HomeCinema CLR UST High Contrast Floor scissor screen - V2.0 complies with the Radio Equipment Regulations 2017. The UK declaration of conformity can be downloaded from the following address: www.celexon.de/zertifikate

The symbol indicates the separate collection of electrical and electronic devices in EU countries. Please do not throw the device into household waste. Find out about the return system applicable in your country and contact your local authority or your local waste and pollutant collection point if you have any questions about the disposal process.