

Supernova[™] Flex

Installation Guide User Guide Service Guide

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A Safety Instructions / Instructions de sécurité

A1 Important Safety Instructions (EN)

- Read these instructions.
- ▲ Keep these instructions.
- Meed all warnings.
- Follow all instructions.
- Clean only with dry cloth.
- ⚠ Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- Do not defeat the safety purpose of the grounding-type plug. A grounding type plug has two blades and a third grounding prong. The third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles and the point where they exit from the apparatus.
- ⚠ Unplug this apparatus during lightning storms or when unused for long periods of time.
- **WARNING!** To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. Do not operate screen before it is installed on wall.
- The apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.
- Follow all installation instructions. Incorrect installation can lead to severe injury and/or permanent product damage and will invalidate the dnp warranty.
- Be sure that the wall studs or other mounting fixtures are suitable for mounting the screen and ...
- Be sure that the screen is mounted correctly and securely to the wall or the dnp warranty will be invalidated.
- The mains plug, extension cord, appliance inlet or power strip is used as the disconnect device, the disconnect device must remain readily operable.
- The screen is a class I construction and shall be connected to a mains socket outlet with protective earthing connection. Do not install without a ground connection.
- Do not pull or tug on screen when mounted on wall.
- Do not restrict the screen from moving.
- ⚠ Do not scratch or bend screen material during handling.
- ⚠ Operate within specified temperature and humidity range (see section I).
- ⚠ Do not attempt to disassemble any part of the screen (electric shock hazard).
- Do not permit children to play with screen controls.
- Examine the screen for imbalance or signs of wear during operation. If needed, adjust before operating.



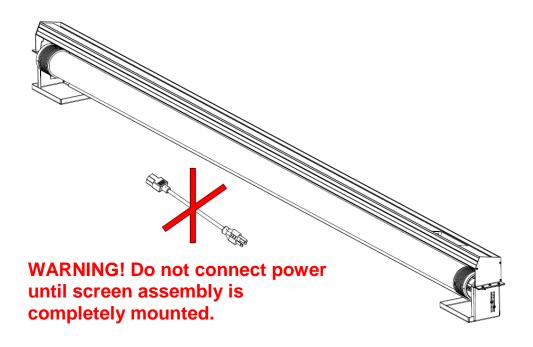


A2 Instructions de sécurité importantes (FR)

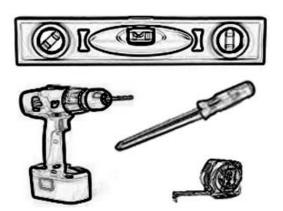
- Lire ces instructions.
- Conserver ces instructions.
- Tenir compte de tous les avertissements.
- Suivre toutes les instructions.
- Nettoyer uniquement avec un chiffon sec.
- Ne bloquer aucune ouverture de ventilation. Installer conformément aux instructions du fabricant.
- Ne pas négliger la sécurité que procure une prise avec raccordement à la terre. Une prise avec raccordement à la terre comporte deux fiches plus une troisième reliée à la terre. Cette troisième fiche est là pour votre sécurité. Si le connecteur fourni ne s'insère pas dans votre prise de courant, consulter un électricien afin de la remplacer.
- Protéger le cordon d'alimentation principale afin qu'il ne soit pas écrasé ou pincé, en particulier au niveau des prises de courant et au point de sortie de l'appareil.
- Débrancher cet appareil en cas d'orage avec risque de foudre ou lorsqu'il n'est pas utilisé pendant des périodes prolongées.
- ATTENTION! Pour réduire le risque d'incendie ou de choc électrique, ne pas exposer cet appareil à la pluie ou à l'humidité. Ne pas faire fonctionner l'écran avant qu'il ne soit installé sur le mur.
- L'appareil ne doit pas être exposé à un égouttement ou des éclaboussures et il convient de ne placer aucun objet contenant un liquide, comme un vase, sur l'appareil.
- Suivez toutes les instructions d'installation. Une installation incorrecte peut causer de sévères blessures et/ou des dommages importants au produit et invalider la garantie du produit.
- Assurez-vous que le matériel d'installation correspond bien à la nature du support et des vis de fixation.
- Assurez vous que l'écran est installé correctement et solidement au mur ou la garantie dnp sera invalidée.
- La prise secteur, le cordon, l'alimentation de l'appareil ou la barrette d'alimentation sont utilisés comme dispositifs de déconnexion et doivent être facile à actionner.
- L'écran est de classe I et doit être connecté à une prise secteur disposant d'une mise à la terre. Ne pas installer le système en l'absence de prise de terre.
- Ne pas tirer sur l'écran une fois qu'il est monté sur le mur.
- Ne pas empêcher l'écran de bouger.
- Ne pas érafler ou courber le matériel de l'écran lors des manipulations.
- Utiliser l'écran selon les plages de température et d'humidité spécifiées (cf. section l).
- Ne pas tenter de démonter quelque partie de l'écran que ce soit (danger de choc électrique).
- Ne pas laisser les enfants jouer avec les commandes de l'écran.
- Examiner l'écran afin de détecter tout déséquilibre ou signe d'usure pendant le fonctionnement. Si nécessaire, ajuster avant de faire fonctionner.







B Required tools



You will need the following tools:

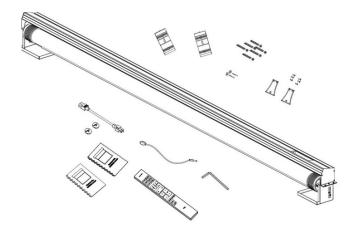
Level
Phillips screwdriver
Power drill
Tape measure



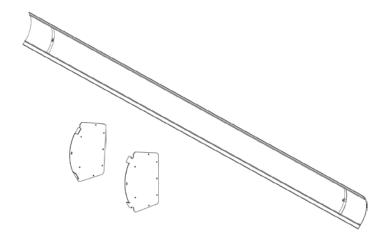


C Box contents

Box 1



Box 2



Check box for:

Box 1 - Screen

- Installation manual (this document)
- 1 User manual
- 1 Screen assembly
- 1 Remote control
- 1 CR2032 3V battery
- 2 Wall brackets
- 2 #8-32 screws for securing screen to wall bracket
- 4 #8 x 2½" wall mounting screws
- 2 #8 x 2½" leveling screws
- 2 Washers for leveling screws
- 2 End-caps for lower bar
- 1 Power cable
- 1 IR cable with clip

Box 2 - Cover

- 1 Cover
- 2 Security clips
- 2 #8-32 screws for security clip
- 2 Washers for security clip
- 2 End-plates for on-wall version





D Planning



See also section J Planning guide



D1 Planning screen location

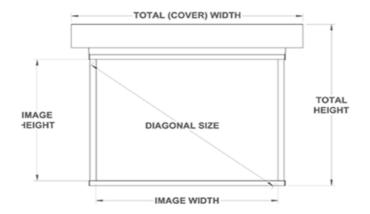
 a. Locate wall studs or other structural member suitable for bracket mounting.

Note: Select studs for mounting that are at least 4" [101 mm] in from end of cover.

- b. Leave enough clearance at ends to permit access for removing screws from shipping fixtures.
- c. Leave enough top clearance to tighten security screws on top of wall brackets.
- d. Custom spacers are available if the screen assembly needs to be spaced further away from the wall to clear obstructions when rolling down.

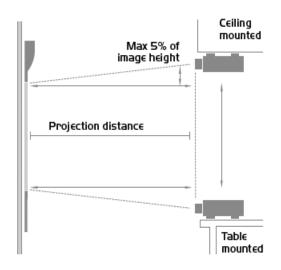
NOTE! See separate manual for inceiling installation!





D2 Checking screen dimensions

- a. Determine space requirements for installation.
- b. Refer to section J Planning guide
- c. Ensure proper clearances.

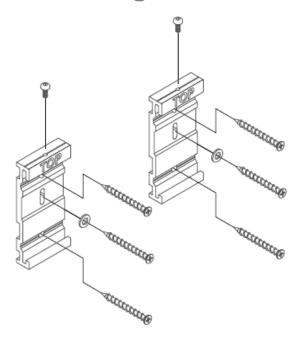


D3 Planning projector location

- a. The projector can be positioned freely on a vertical centerline, perpendicular to the screen, up to 5% above (ceiling mounted) or up to 5% below (table mounted) the image area.
- b. Projection distances must be based on manufacturer's specifications for the exact model and lens choice.

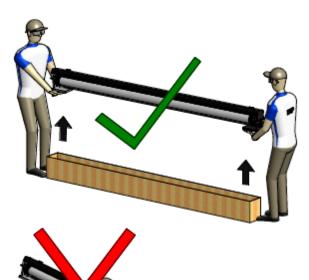


E Mounting screen assembly



E1 Unpacking bracket hardware

- a. Unpack two wall brackets.
- b. Unpack mounting and securing hardware.





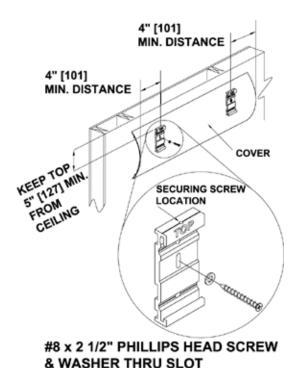
- a. Use two people to lift screen from box.
- b. Lift from box using the two shipping fixtures at the ends as handles.



Warning! Do NOT lift from middle of screen.

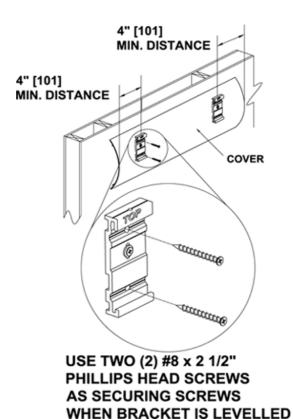






E3 Leveling brackets

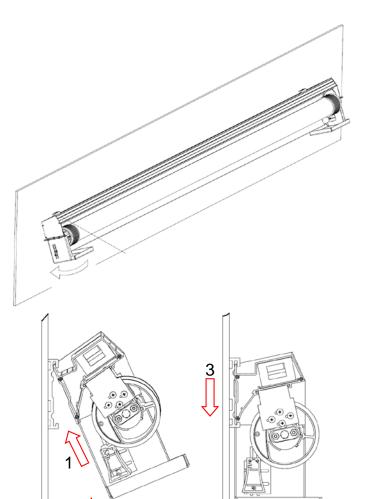
- a. After planning screen location... (using section J Planning guide)
- Mount wall bracket with securing screw at top of bracket.
- c. Locate wall brackets at least 4" [101 mm] in from end of cover.
- d. Level wall brackets to each other and tighten leveling screws.



E4 Securing wall brackets

- a. Secure each wall bracket with two wall mounting screws.
- b. Tighten all screws.



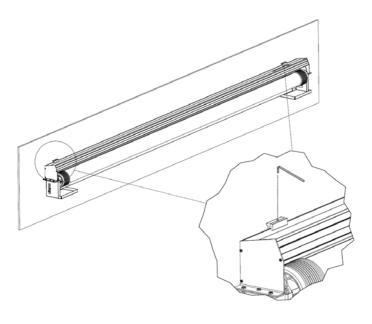


E5 Mounting screen

- Leave shipping fixtures attached to ends while mounting screen assembly to wall.
- b. Using two people, grasp fixtures, lift (1), rotate (2), and seat (3) screen assembly into wall brackets.



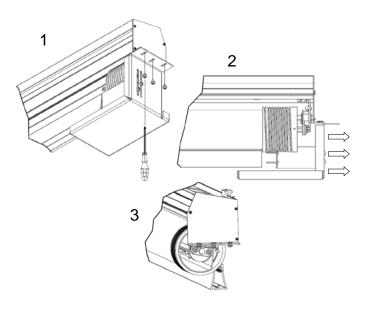
Warning! Be sure that screen assembly is securely seated before releasing grip.



E6 Securing screen assembly

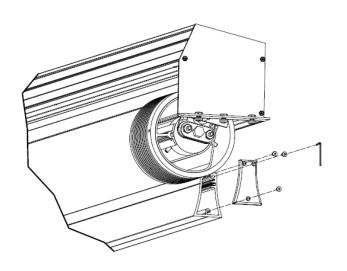
- a. Ensure that screen is properly seated into both wall brackets.
- Use securing screws to tighten down screen assembly to wall brackets.





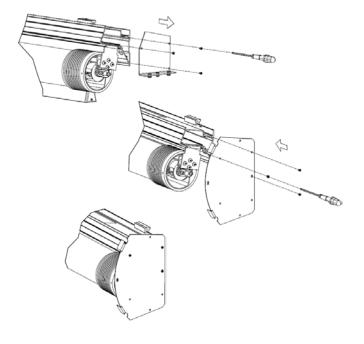
E7 Removing fixtures

- a. Remove connection screws from shipping fixtures (1) and ...
- b. Carefully remove lower part of shipping fixtures from ends of screen assembly (2).
- c. Upper part of shipping fixture stays on master frame (3)



E8 Mount end-caps

- a. Unpack two end-caps and screws.
- b. Attach end-caps to lower bar and tighten the screws.



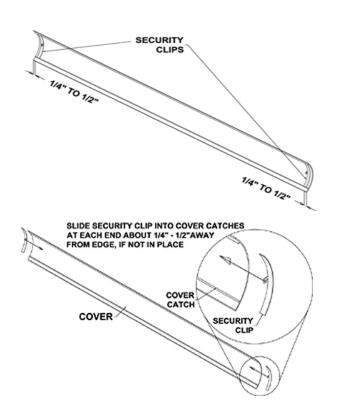
E9 Replace shipping fixture

NOTE! Only for on-wall installation

- a. Detach screws in upper par of shipping fixture. Keep screws.
- b. Unpack end-plates in box 2.
- c. Re-use screws from above to attach end-plates.

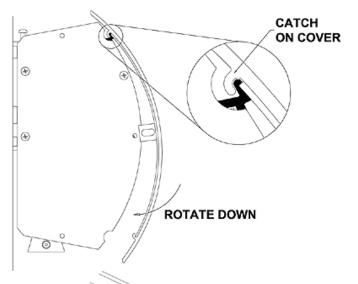






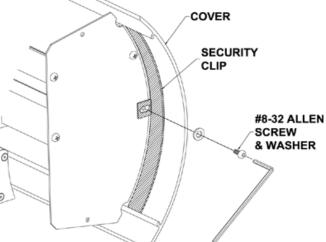
E10 Attaching security clips

- a. Slide security clips into the cover catches at the ends of the cover.
- b. Be sure ends of security clips are seated in the cover catches.
- c. Loosely position security clips near ends of cover.



E11 Seating cover

- a. Lift cover onto screen assembly.
- b. Mate the catches on back of cover to lip on top of screen assembly.
- c. Rotate cover down until it stops.

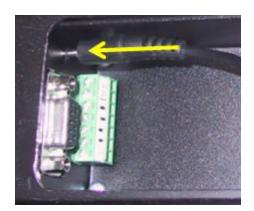


E12 Securing cover

- a. Position security clips on outside of screen assembly ends and ...
- b. Secure with #8-32 screws and washers.

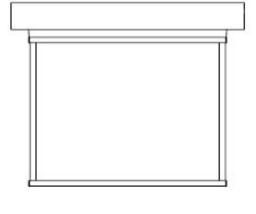






E13 Powering up (Plug in)

- Insert the plug of the IR receiver cable into the mini-jack socket in the screen (located next to the RS-232 socket). See photo left.
- Place the infrared eye in the metal holder and ensure that good visible contact to the remote control can be obtained.
- c. Plug the power cord into the screen- and wall sockets. A green LED is lit when power is on (positioned left of the green Phoenix plug)
- d. See section G Remote control button functionality for detailed information on the remote control
- e. Press the lower button [DOWN] on the remote control to move the screen to the factory set bottom stop position
 See section F Setting new stop positions for information on how to set a new bottom stop
- f. Press the upper button [UP] on the remote control to move the screen to the factory set top stop position



E14 Checking smooth operation

position

- a. Check extension and retraction of screen.
- Ensure that screen retracts smoothly and does not snag on any parts.
- c. Ensure that full screen extension operates without hitting obstacles.







F Setting new stop positions

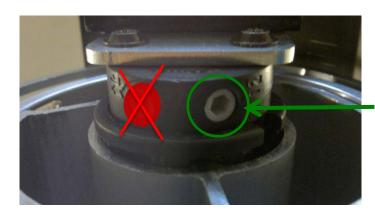
Top- and bottom stop positions are pre-set at the factory.

Do NOT change the top stop position!!!

High risk of damaging the screen If not done correctly.

On the motor there are two hex-screws, marked 1 and 2, that are used to manually adjust the stop positions.

Screw #1 is used to adjust the top stop position (sealed from factory¹) Screw #2 is used to adjust the bottom stop position



Adjustment screw #2 is positioned to the right (side view).

To set a new TOP position:

As highlighted above this is NOT recommended and will void the warranty.

NOTE! When the screen is up there must be space between the bottom bar and the backside of the screen material and to the master frame. If the top position is set too high, and the bottom bar is touching the screen material and/or the master frame, permanent stress is applied to screen components when the screen is up. This may lead to permanent damages to the screen material and/or framing system This is NOT covered by the dnp warranty

¹ Do not break seal. Breaking seal would void the dnp warranty.

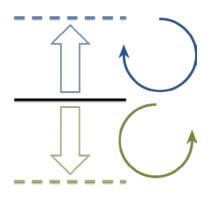


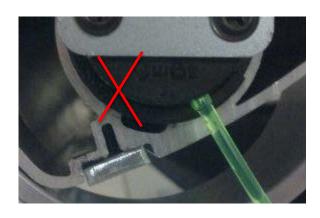


To set a new BOTTOM position:

Turn adjustment screw #2 **clockwise** to **raise** the bottom stop position

Turn adjustment screw #2 **counterclockwise** to **lower** the bottom stop position





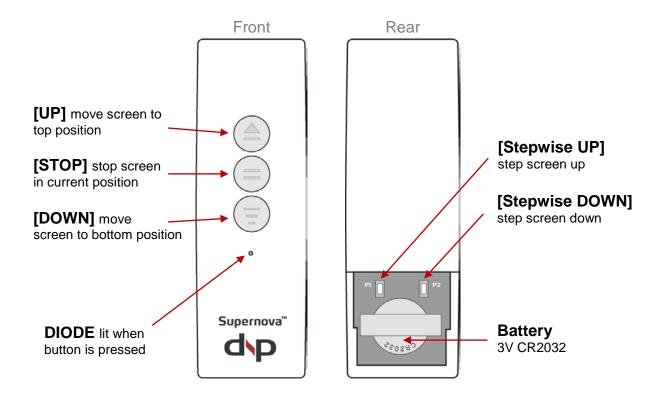
One turn of the adjustment screw will move the stop approximately 2"

CAUTION! Leave at least two revolutions of the steel wire on the helixes. Otherwise there is risk of the lower part of the screen separating from the helix/roller. This is NOT covered by the dnp warranty.

CAUTION! Be careful not to lower the screen too far. If the screen is continuously lowered it will eventually reverse on the roller, which may lead to permanent damage of screen components. This is NOT covered by the dnp warranty



G Remote control button functionality



NOTE! Be aware when installing two screens close to each other or close to other equipment using the same IR communication protocol. Commands may activate other electronic components.

Batteries

3V CR2032 battery included. Remove battery cover and insert battery with + out. Check that LED is lit when pressing a button. Rep

CAUTION!

Danger of explosion if battery is incorrectly replaced.

Replace only with the same or equivalent type.

Do not use re-chargeable batteries.

Batteries (battery pack or batteries installed) shall not be exposed to excessive heat such as sunshine, fire or the like.

ATTENTION!

Danger d'explosion si la pile n'est pas remplacée correctement.

Ne remplacer que par le même type ou un type équivalent.

Ne pas utiliser de piles rechargeables

Les batteries (bloc de batteries ou batteries installées) ne doivent pas être exposées à une chaleur excessive telle que celle du soleil, d'un feu ou d'origine similaire





H Communication

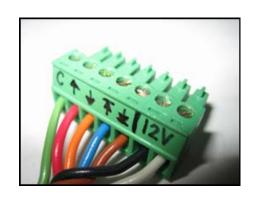
IR remote control

See section G Remote control button functionality on how to operate the IR remote control. The remote is using a special IR protocol. Contact dnp denmark for more information.

Contact closure

To operate the Supernova Flex through contact closures, a pluggable terminal block connection is available. The terminal block has seven positions for wires.

For contact closure operation, the five terminals on the left side of the terminal block are used. The operation of the screen through this port is as follows:



Label	Name	Description
С	Common	Common wire, shorted to others for control.
1	Raise	Momentarily connect to common to raise the screen incrementally. The screen will rise as long as this contact remains shorted to common.
1	Lower	Momentarily connect to common to lower the screen incrementally. The screen will lower as long as this contact remains shorted to common.
†	Тор	Momentarily connect to common to send the screen to the preprogrammed top position. It is not necessary to continue connecting to common after motion begins.
Ŧ	Bottom	Momentarily connect to common to send the screen to the preprogrammed bottom position. It is not necessary to continue connecting to common after motion begins.

12V-Trigger control

For low-voltage trigger operation the two terminals on the right side of the terminal block are used. Applying 5V to 12V (AC or DC) to these two terminals will cause the screen to lower to the bottom position; removal of the voltage will cause the screen to return to the top position. Polarity is not important (either polarity works for DC voltage).





RS-232 serial control

Introduction

The interface is based on RS-232 using 115200 Baud, 8 databits, 1 start bit, 1 stop bit and no parity.

Protocol

The protocol is line-oriented. The controller expects single command lines containing a command word - optionally followed by one or more parameters, each separated by one or more spaces. Command lines must be terminated by a single carriage return (ASCII code 13) and may be optionally followed by a linefeed (ASCII code 10).

Command words are not case-sensitive. They may be abbreviated.

The controller will respond to command lines with a status message. In response to some commands the controller may send multi line responses.

When powered up, the controller will send an initial welcome message, which includes the serial number and the firmware version.

dnp denmark – Supernova Flex Serial no. 123456. FW ver. 7.8.9

User commands

This section describes most common user commands in detail. Items enclosed in square brackets are optional. For example, the command syntax for moving the screen to the bottom stop position is:

B[ottom]

Possible command lines are

"B" or "b" or "BOTTOM" or "bottom"

Status messages are sent by the controller in response to a command line:

"moving to bottom stop position"





b[ottom]

Moves the screen to the bottom stop position.

bottom

moving to bottom stop position done

d[own]

Moves the screen one step down.

down

moving one step down done

h[elp] or ?

Lists all available commands.

help

Command list follows:

B[ottom] : Move screen to bottom stop position

D[own] : Move screen one step down H[elp] : List available commands I[nfo] T[op] U[p] X : Show system information : Move screen to top position : Move screen one step up

: Immediately stop screen movement

? : List available commands

i[nfo]

Shows system information.

Info

dnp denmark – Supernova Flex Serial no. 123456. FW ver. 7.8.9

t[op]

Moves the screen to the top stop position.

Top

moving to top stop position done

u[p]

Moves the screen one step up.

Uр

moving one step up done

X

Immediately stops current screen movement.

stopped by user





Troubleshooting

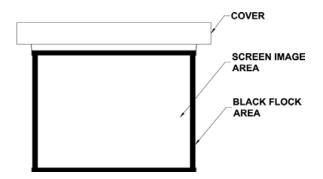
The screen will not move:

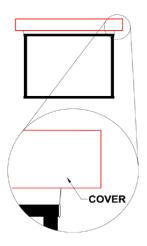
<u>Check</u>	<u>Solution</u>
Is the power cord connected?	Plug into screen and wall socket.
Is power on (is green LED lit)?	Turn on power
Is screen at top position?	Screen cannot move beyond top position. Move down.
Is screen at bottom position?	Screen cannot move beyond bottom position. Move up, or change bottom stop position (see section F Setting new stop positions).
If low-voltage trigger is used: - are connections OK? - is signal correctly sent?	Connect wires correctly (see section H Communication) May help to change to longer pulse-signal or change to permanent on-signal
If contact closure is used: - are connections OK? - is relay working properly?	Connect wires correctly (see section H Communication) Make sure that relay is short circuiting.
If RS-232 is used: - is correct protocol used? - is correct command used? - is there an error message?	See section H Communication for communication protocol. See section H Communication for available commands. Try resetting controller by power off and power on. If the error message re-occurs contact place of purchase.
If IR remote control is used: - is IR remote working? - is battery correctly inserted? - is visible contact to IR sensor OK?	Check that LED is lit when pressing buttons. Check that signal is sent by looking through (mobile phone) camera. Ensure that battery is correctly installed with + up/out Re-position sensor or move any obstructions.
A number of failures (i.e. screen overload) will automatically disable the controller.	 Disconnect and re-connect power. Follow section E Mounting screen assembly on how to start up after power off.
Still not working?	Contact place of purchase.





J Cleaning





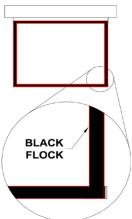
Cover / Chassis

Slightly dusty

Dust with a feather duster or something similar. Light vacuum cleaning is possible, but make sure to use a fitting with bristles that are not too soft but not hard enough to scratch the surface.

Dirty

Use a standard detergent for household cleaning - never harsh acidic or alkaline cleaners, as they may stain the frame. Take care to avoid scratching. Dry with a lint-free cloth.



Black velvet area

Slightly dusty

Dust with a feather duster or something similar.

Dirty

Clean with a gentle detergent solution. Apply with a small brush. We recommend a soft toothbrush. Dry with a lint-free cloth or with a hairdryer without heat.



Screen image area

Slightly dusty

Dust with a feather duster or something similar.

Dirty

Use an ordinary window cleaner with ammonia or alcohol. Treat the entire image area and clean with a paint pad or lint-free cloth. Apply gentle counter-pressure on the opposite side. Make sure the screen is completely dry afterwards leave it down overnight to dry.





K Sales & delivery terms

- **1. SCOPE.** These sales and delivery terms apply to all quotations, orders, sales, and deliveries of mechanical products more specific Supernova Flex, Supernova Epic, and Supernova Mobile from dnp denmark as unless otherwise agreed in writing.
- **2. PRODUCT INFORMATION FROM DNP DENMARK A/S.** Information in advertising materials, folders, installation guidelines etc. on construction, materials, specifications, installation, and use of dnp denmark's products is subject to change without notice. Such information is binding on dnp denmark only if agreed in writing or confirmed by dnp denmark. dnp denmark reserves the right to make changes to agreed specifications, instructions on installation and mounting if this is possible without disadvantage to the customer.
- **3. PAYMENT.** Payment shall be made by the customer at latest on the due date fixed in dnp denmark's invoice. In case of late payment dnp may add interest on the sum owing at the rate of 2% per running month from the due date. Unless otherwise agreed in writing, all deliveries will be made when dnp denmark has received payment from the customer.
- **4. DELIVERY.** All deliveries from dnp denmark are ex works unless other terms of delivery are agreed in writing. If so, the terms of delivery shall be interpreted and understood in accordance with the Incoterms applicable as of the date of the agreement.
- **5. DELAY.** The delivery date is fixed in accordance with dnp denmark's best estimate based on the conditions applying as of the date of the agreement. Unless otherwise expressly agreed, a postponement by dnp denmark of 30 days of the delivery date attributable to circumstances relating to dnp denmark shall be deemed in all respects to be timely delivery, and the customer shall not be entitled to terminate the agreement or invoke any of the breach of contract provisions otherwise applicable as a consequence of the postponement.

If the order includes various products confirmed for delivery at the same time, dnp denmark shall be entitled to deliver the products which are ready for delivery at the agreed time and to postpone delivery of the other products included in the agreement against payment of freight costs associated with such delivery by dnp. In such event the customer shall not be entitled to cancel the agreement or to claim breach of contract as a consequence of the delay.

If dnp denmark is prevented from fulfilling the agreement or if fulfilment of the agreement would be unreasonably burdensome by reason of extraneous circumstances (force majeure) such as strike, fire, war, requisitioning of operating equipment, sequestration, currency restrictions, civil disturbance or unrest, or missing or delayed deliveries from subcontractors attributable to the above circumstances, the delivery time shall be postponed by the duration of the disturbance and none of the parties shall be entitled to claim against each other.

dnp denmark will advise the customer of changes to the delivery date without undue delay in accordance with the above provisions and as far as possible give a new delivery date.

6. DEFECTS AND DEFICIENCIES. Immediately on receipt of the delivery the customer is required to examine the delivery in accordance with normal business practices.

If the customer wishes to claim a defect or deficiency, dnp denmark shall be advised immediately in writing. The customer shall otherwise forfeit any claim against dnp denmark.

dnp denmark may rectify the deficiency by replacement of product parts, repair or redelivery. Freight costs in connection with return of the delivery to dnp denmark will be refunded to the customer if dnp denmark can accept that the delivery was defective.

If defects or deficiencies have not been claimed against dnp denmark within (24) months of the delivery, the customer shall not be entitled to make subsequent claim.





dnp denmark shall not be liable for defects and deficiencies attributable to circumstances outside of dnp's control or of no concern to dnp including

- o Inadequate training of the customer's personnel
- ° Failure to observe dnp denmark's instructions
- ° Faults arising from normal use
- Damage arising during the purchaser's transport of the delivery.

7. WARRANTY. dnp denmark as warrants the product against defects in material and workmanship under normal use in accordance with dnp denmark's instructions on installation, use, maintenance, and repair etc. dnp denmark as will for a period of (1) year from date of invoice without extra cost for the customer make replacements, repair or redelivery of the parts with defects due to defective materials or workmanship. Replacement, repair, or redelivery is made by dnp denmark as at its option and the warranty hereof is valid for the remaining period of the original warranty period.

To obtain warranty service the product serial number or other identification according to the agreement may not be removed or defaced. Furthermore, this warranty does not apply to damages or defects caused by normal use, accidents, wear and tear, reckless use of the product, use of the product for other than intended purposes and/or use not complying with dnp denmark's instructions on correct use, maintenance, handling, or installation. Claims during the warranty period also require that the product is used according to the current local technical or security standards, and no unauthorised or non-approved accessories have been used, as well as any modifications and changes in the product regardless of the reason and regardless if the adjustment has been correctly made. Additionally warranty claims are conditioned by no use of unauthorised software or virus and the warrant does not apply to damage caused by force majeure among others fire, flood etc.

The warranty does only apply product defects in the above stated. The guarantee does not cover financial losses, direct or indirect losses or consequential damages.

- **8. PRODUCT LIABILITY.** dnp denmark is liable for damage or injury to person only if documentary evidence can be provided that the damage is attributable to error or negligence on the part of dnp denmark. dnp denmark shall not be liable for damage to property or chattels belonging to the purchaser or others unless the damage is due to gross negligence on the part of dnp denmark. dnp denmark's liability may in no case exceed DKK five (5) million. dnp denmark can in no event be held liable for operating loss, loss of profit or any other indirect losses. If product liability is ascribed to dnp denmark by third party, the customer shall indemnify dnp denmark to the limit of dnp denmark's liability under this provision.
- **9. LIMITATION OF LIABILITY.** The customer may in no event claim compensation for operating loss, loss of profit or other indirect losses in cases of delays, defects or deficiencies, irrespective of whether the delay, defect or the deficiency may be attributable to dnp denmark. The customer may only claim a proportionate rebate in the purchase sum or compensation for the customer's direct documented loss if the delay or the deficiency is attributable to gross negligence on the part of dnp denmark.
- **10. DISPUTES AND JURISDICTION**. Unless otherwise agreed in writing, any dispute between the parties concerning the agreement shall be settled by arbitration in Copenhagen, Denmark, at the Danish Institute for Arbitration, *det Danske Voldgiftsinstitut*, in accordance with the rules for processing of cases at the General Arbitration Court in Denmark, "*Regler for behandling af sager ved Det Danske Voldgiftsinstitut*". Danish law shall apply.

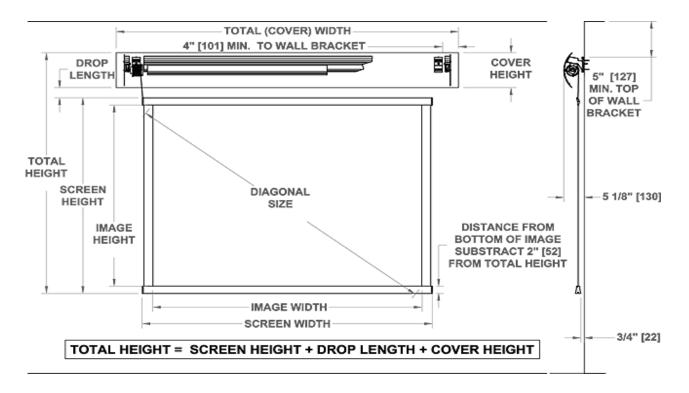




L Planning guide

Use below information and size specifications to determine the placement of the screen and the wall brackets.

NOTE! See the Supernova Flex datasheet for screen specifications and dimensions for your size of screen.



www.dnp-screens.com

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