SGM
LIGHT TECHNOLOGY

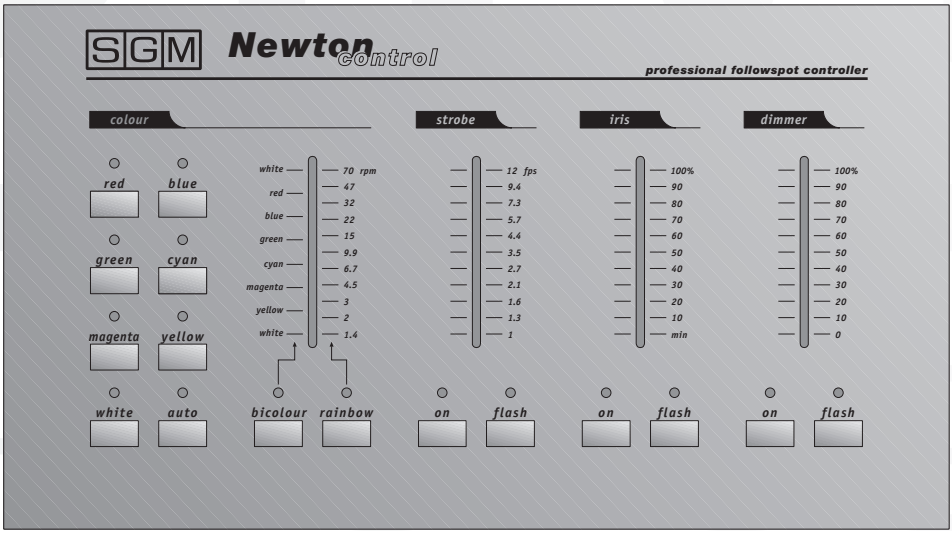
Adobe Acrobat® version

Newton control

professional followspot controller

rel. 1.02

user manual



General warnings

Carefully read the warnings contained in this manual, since they supply important instructions concerning safety of installation, use and maintenance.

It is very important that this manual be kept with the equipment for future consultation.
In case of sale or transfer of the equipment to another user, ensure that this manual always accompanies the equipment to allow the new owner to obtain information about the operation and the relevant warnings.

- After unpacking check the integrity of the equipment. In case of doubt, do not use the equipment, and contact an authorized SGM Technical Service Centre.
- The packaging materials (plastic bags, expanded polystyrene, nails, etc.) must be kept out of reach of children since they are potential sources of danger.
- This equipment may only be operated by adults. Do not allow children to tamper with the machine or play with the product.
- The electrical work necessary for the installation of the equipment must be carried out by a qualified electrician or by a competent person.
- Before connecting the unit, check that the data on the registration plate is the same as that of the electrical grid.
- Avoid using the equipment:
  - in places subject to excessive humidity
  - in places subject to vibrations or knocks
  - in places with temperatures higher than 45°C or lower than 2°C
  - Protect the equipment from excessively humid conditions (the optimum values are between 35 and 80%).
- Do not disassemble or modify the equipment.
- Prevent inflammable liquids, water or metallic objects from penetrating the equipment.
- In case of spilling liquid on the equipment, immediately disconnect the power supply of the mixer.
- The minimum distance between the projector and the surface to be illuminated must not be less than 1.5 m.
- In case of serious functioning problems, switch off the equipment and contact the nearest SGM retailer or the manufacturer directly for inspection.
- Avoid opening the equipment: there are no parts repairable by the user.
- Never try to repair the equipment alone. Repairs carried out by inexpert persons may cause damage or serious malfunctioning. Contact the nearest authorised Technical Service Centre.

Always insist on original spare parts.

Protect the environment: do not throw the packaging in your dustbin, but return it to your retailer or take it to a collection point for special waste disposal.

Index

1 General warnings

2 Index

3 General Characteristics

3 Technical Characteristics

4 Newton Control Connections

4 Newton Control Commands

4 ch 1 - iris

5 ch 2 + ch 5 - colour / colour mode

5 ch 3 - dimmer

5 ch 4 - shutter/strobe

LIGHT TECHNOLOGY

Made in Italy by SGM Electronic

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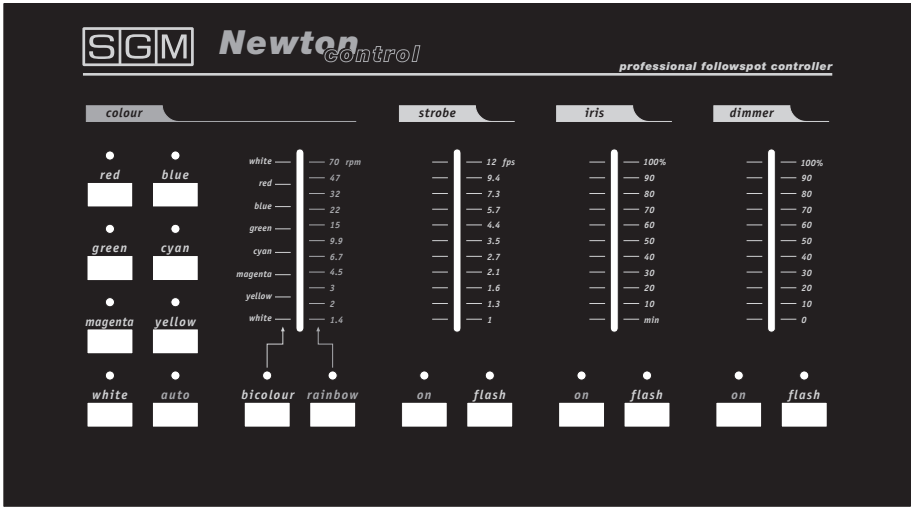
General Characteristics

Newton Control is a dedicated control unit for the intelligent Newton spotlights.
Its simplicity of use makes it suitable for any type of application, since it allows much more rapid, more simple and more precise control than occurs with controls fixed to the projector body, and can also be carried out at a considerable distance from the projector.
The vast and pluridecennial experience of SGM in the sector of light control systems has allowed developing a product with high reliability and precision, thanks to the absolute mastery of the know-how and the optimisation of the quality/price relation.
Newton Control is supplied directly from the projector to which it is connected and does not require any other connections.

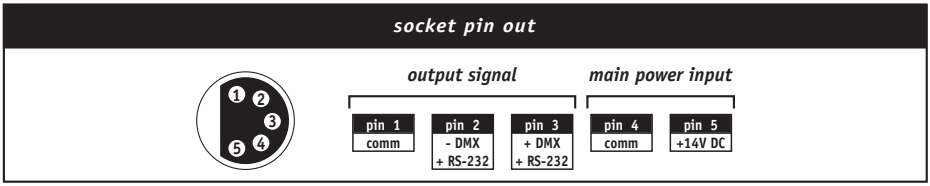
Technical Characteristics

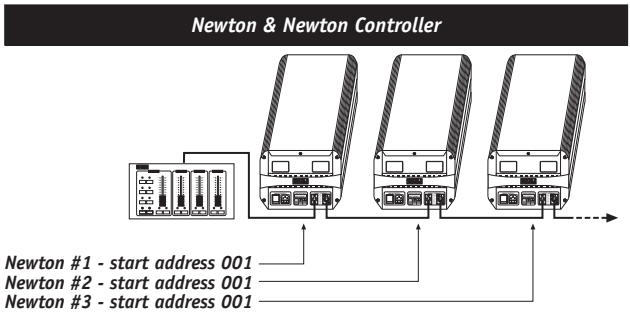
POWER SUPPLY	+ 14V DC, 350mA
ABSORBED POWER	5W.
ELECTRONICS	Entirely developed by the SGM Research & Development Laboratory. Equipped with a mother board (CS 0190)
CONTROL SYSTEM	Newton Control controls 5 DMX channels, corresponding to the following Newton projector functions: ch 1 = iris / ch 2 = colour ch 3 = dimmer / ch 4 = strobe / ch 5 = colour mode
BODY	Milled and shaped wood. Epoxy-powder enamelling
DIMENSIONS	40.5 x 28.5 x 5 cm - weight 3.9 kg



Newton Control Connections

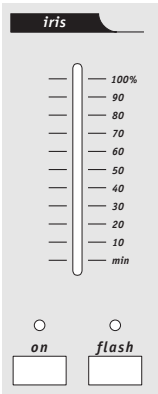
Newton Control is connected to the Newton spotlight through the DMX 512 input socket.
The control unit is fitted with a special connection cable.
The Newtons allow cascade connection and can thus be controlled in classic DMX (or RS-232) chains. Therefore, the operator is not required to control the functions, transferred to the controller or the light desk, and can concentrate on the movement quality.
When using a different controller or a light desk, the projectors must be suitably addressed (see the following diagrams), while when using the dedicated Newton Control, all the projectors must be addressed to channel 001. In the first case the Newtons are independent, while in the second case they are all under the same controls.
The Newtons supply power directly to the Newton Control unit using the pins 4 and 5 of the DMX IN socket (see following diagrams).
When implementing systems using these two socket pins, always bear this in mind, in order to prevent damage to the projector or the units connected to it.





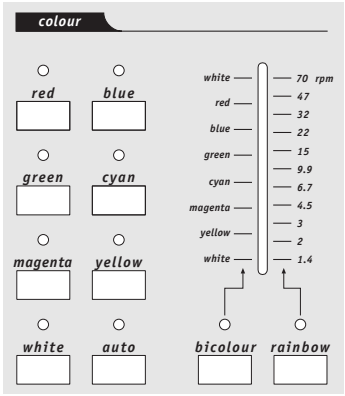
Newton Control Commands

ch 1 iris



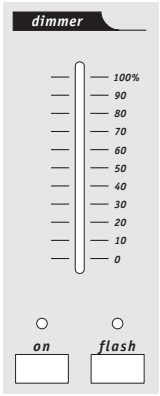
Newton Channel 1 controls the iris (diaphragm). On Newton Control adjustment occurs through the relevant control and is continuous on a scale of 0 to 100%.
The ON key opens or closes the luminous beam, while the FLASH key allows aperture from the value set with the slider up to maximum, with return to the starting value when the key is released.

ch 2+5 colour/colour mode



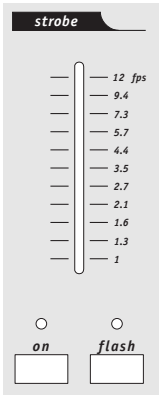
Newton Channel 2 controls the colours and operates in combination with channel 5 (colour mode).
On Newton Control the colour controls are grouped and arranged in a simple and intuitive manner.
The red, blue, green, cyan, magenta, yellow and white keys give direct access to the relevant colour, with passage to blackout from one position to the next.
The AUTO key automatically activates the colour change with blackout mode (hard change).
BICOLOUR controls the two-colour mode whose indications are shown on the scale to the left of the adjustment slider. In this way, pressing the colour keys also activates the change between adjacent colours.
The RAINBOW mode is activated through the relevant key. The rotation speed of the colour wheel is shown to the right of the adjustment slider, variable from 2.4 to 70 rpm.
The slider moreover gives access to analog colour control and the passages between one colour and the next.

ch 3 dimmer



Newton Channel 3 controls the linear dimmer.
On Newton Control the adjustment occurs through the relevant control and is continuous on a scale of 0 to 100%.
The ON key opens or closes the shutter which blocks the luminous beam, while the FLASH key allows aperture at the value set with the slider, with return to the starting value when the key is released.

ch 4 shutter/strobe



Newton Channel 4 controls the shutter/strobe.
On Newton Control the adjustment occurs through the relevant control and is continuous on a scale of 1 to 12 fps (flashes per second).
The ON key activates the strobe, while the FLASH key allows instantaneous activation of the strobe (at the desired frequency), deactivating it when the key is released.

cod. M001180

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