

PRO series – Short reference

Congratulations on choosing a Rainbow Colour Changers product! We thank you for your custom. Please note that this product has been designed and made with total quality to ensure excellent performance and best meet your expectations and requirements.

It is essential to know the information and comply with the instructions given in this manual in order to ensure the fitting is installed, used and serviced correctly and safely.



Carefully read this instruction manual in its entirety and keep it safe for future reference! Please hand this manual over if you sell or give this product to somebody else.



General

- Rainbow Colour Changers products are intended for professional use and should only be used by qualified personnel or under their supervision.
- Follow all cautions and warnings indicated on the unit.
- After unpacking this product, please check if the device is intact. If this is not the case, please contact the support service.

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Installation

- Make sure all parts for fixing the colour changer are correct.
- Make sure the fixture is stable before positioning the Colour Changer.
- Do not fix this device on or near flammable surfaces.

Usage

- This product is designed for indoor use only. For the fitting to operate well and reliably, it should not be used in humid environments. The ambient temperature should not exceed 40°C (104°F) or fall below 0°C (32°F).
- Avoid any liquids or metallic items entering the unit.
- Ensure adequate ventilation and do not block or cover any ventilation slots in the device – they guarantee the reliable functioning of the unit and protect it against overheating.
- The scroller may only be used in its standard position, which is +/- 60° from horizontal.
- The colour changer may only be put into operation with original Rainbow Colour Changer power supply units (PSU).
- Check that the mains frequency and voltage correspond to those for which the PSU is designed as given on the surface label of the PSU. Refer to the manual about the max. amount of scrollers to be connected

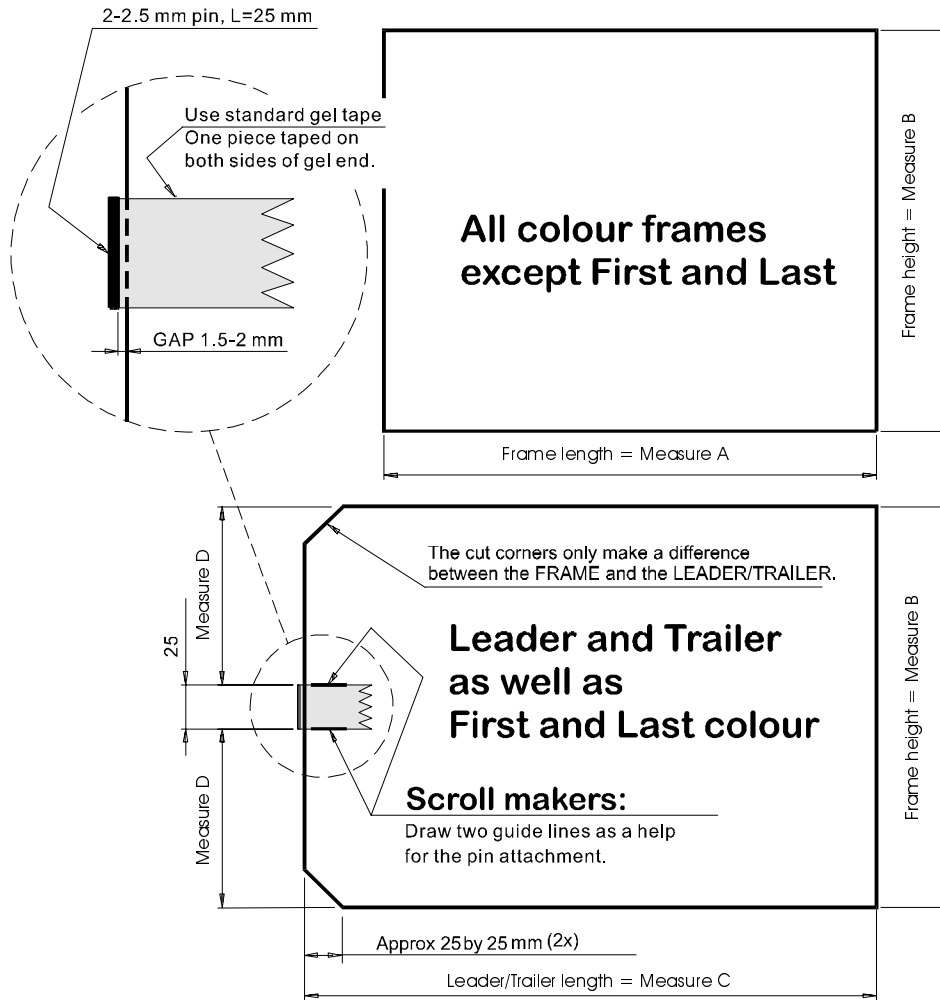
Maintenance

- All service work should be exclusively performed by qualified personnel.
- Do not dismantle the scroller or modify it yourself.
- Before starting any maintenance work or cleaning the scroller, remove the power from the PSU.
- The surface of the device may heat up due to the luminaire used. Please let the scroller cool down before touching it.

Rainbow Colour Changers GmbH disclaims all liability for damage to the fitting or to other property or persons deriving from installation, use and maintenance that have not been carried out in conformity with this instructions manual, which must always accompany the fitting.

Rainbow Colour Changers GmbH reserves the right to modify the characteristics stated in this instructions manual at any time and without prior notice.

Cutting Gels PRO Range



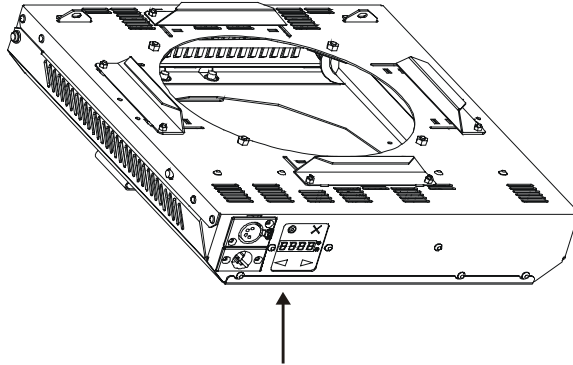
The whole scroll MUST be straight and tape sticking out MUST be cut.

Colour Changer	Measure A	Measure B	Measure C	Measure D
6" PRO	220 mm	168 mm	265 mm	71,5 mm
8" PRO	280 mm	228 mm	325 mm	101,5 mm
12" PRO	370 mm	318 mm	415 mm	146,5 mm
15" PRO	560 mm	410 mm	660 mm	192,5 mm
8-Lite PRO	560 mm	640 mm	660 mm	307,5 mm

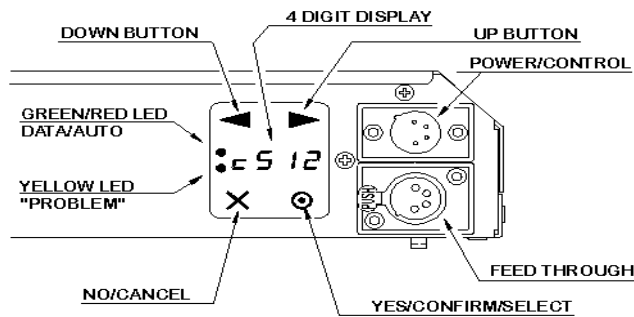
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Location of LED-display and DMX ports

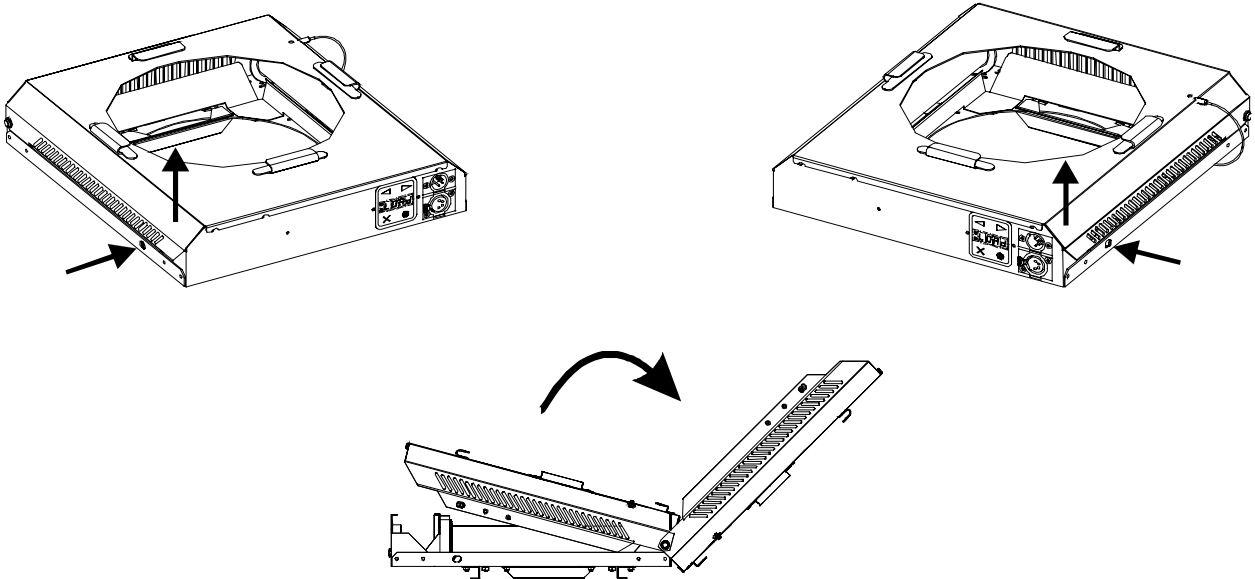


LED-Display and DMX ports



Opening the unit

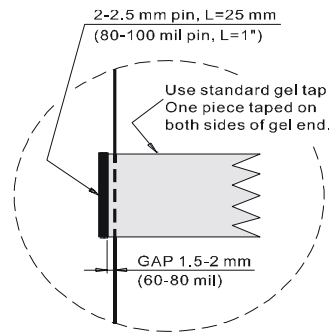
Place the unit lying on its back on a table with the scroller front facing up and the display facing you. Open the lid of the unit by pressing the spring-loaded locking pins on each side and lifting the lid upwards as shown in the figure .



Scroll load and power up the Scroller

Loading the gel string:

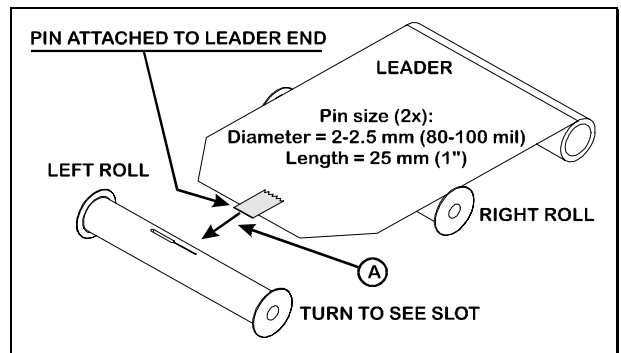
The gel string has to be cut exactly to the measurements for the scroller for proper operation. The delivered Gel Attachment Pins should be fixed at the beginning and the end.



The heat resistant tape for connecting the single colour frames has to be on the side which turns away from the luminaire. The Colour Changer should be placed opened (see „Opening the scroller“), with the display facing you. Connect the scroller with the power supply and switch it on.

Step	Key/Sequence	Action	Display (?- for individual value)	Display/Action
1.		Turn on the power	u2.2 1	Actual software-version (example)
			Pr0.8	Type of the unit (example)
			Lo00	Alternating with the number of frames
			-00-	
2.	⊙	Press	0000	Scroller drives to the home position
			u0 1n	When it is at its home position
3.		Insert the colour string		

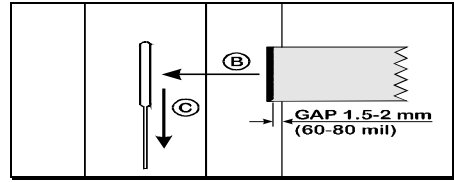
Lay down the gel string on the right hand side of the scroller, so that the string is aligned between the flanges of the right roll. Please note that the colour string is running between the leaders at the side of the rolls. Turn the left roll until the slot faces upwards.



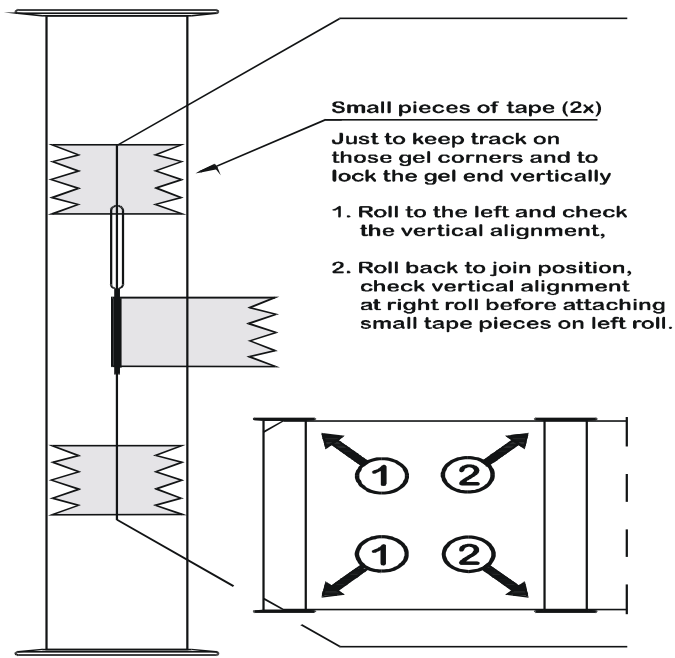
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COLOUR CHANGERS

Slide the pin of the start gel leader into the slot of the left roll (B) and centre the colour string in the middle of the roll (C), so that the leaders at the side of the rolls do not have any touch with the colour string.



Fix the edges of the colour string with the help of the heat resistant tape.



Step	Key/Sequence	Action	Display (?- for individual value)	Display/Action
4.	◀	Press	roll	Gel string rolls forward
5.	▶	Press	roll	Gel string rolls back
6.		At the end position tension the roll and fix the gel string		

Stop when the end gel string trailer is over the right roll. Pull the end gel string trailer lightly to tighten the wound up gels on the right roll. have to tension the right roll.

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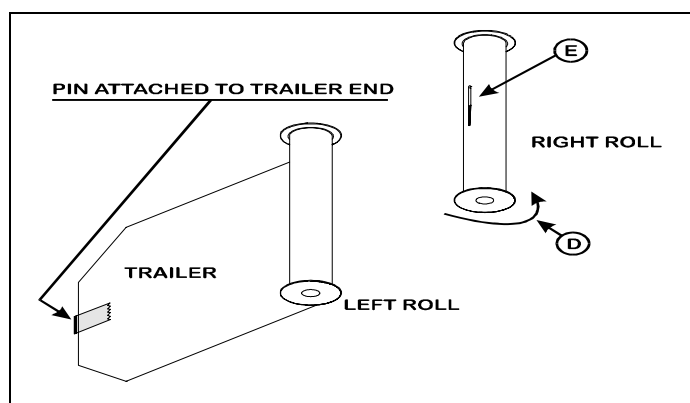
Depending on the number of single frames, you have to tension the right roll:

For 6", 8" and 12" PRO Colour Changer:

- 2 – 21 colours = 6 full turns
- 21 – 25 colours = 7 full turns (for the 12" PRO)
- 21 – 33 colours = 7 full turns

For 15" and 8-Lite PRO Colour Changer:

- 11-16 colours = 18 full turns
- 17-20 colours = 20 full turns
- 21-25 colours = 20 full turns

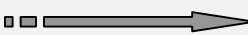


Tension the right roll by turning it anti-clock-wise. After the correct quantity of full turns hold the roll (the slot has to face up) and fix the colour string by attaching the gel attachment pin into the slot of the right roll. Release the roll carefully and check with the help of rolling forward and back with the following keys ► ◀ the correct guide of the colour string. Now fix the edges of the gel string with the heat resistant tape.

The automatic pre-calibration and the pre-run of the colour string follows at this point. This is necessary for a precise rolling-up, because the Colour Changer automatically calculates the number of colour frames.

Step	Key/Sequence	Action	Display (?- for individual value)	Display/Action
7.	⊙	Press	<i>P_{run}</i>	Flashing
8.	⊙	Press	<i>PCAL</i>	Pre-calibration is running
9.		End of pre-calibration	<i>P_{rn.1} - P_{rn.F}</i> ▣▣ →	Counts pre-run 1-15 (F)
	⊙	Press	<i>P_{rn.?}</i>	Early interruption of the pre-runs (possible from the 6. pre-run)
10.		End of pre-run	<i>CAL</i>	Calibration is running
		End of calibration	-??-	Amount of the colour frames
	◀	Press (if the calculated number of colour frames is wrong)	-??-	Reduces the amount of colours (max. 2 possible)
	▶	Press (if the calculated number of colour frames is wrong)	-??-	Raises the amount of colours (max. 2 possible)
11.	⊙	Press	-??-	Confirm
			<i>L???</i>	Level display of the colour channel
12.			<i>c00 1</i>	Start address <i>End of the loading procedure</i>

Load the colour string (overall view):

Step	Key/Sequence	Action	Display (?- for individual value)	Display/Action
1.			Load -??-	Alternating General adjustment of the not loaded Scroller
2.	⊙	Press	0000	Scroller is running to the start position
			Jo in	When arriving at the start position
3.		Insert the gel string		
4.	◀	Press	roll	Gel string runs forward
5.	▶	Press	roll	Gel string runs back
6.		Gel string at the end position: Tension the roll and fix the gel string		
7.	⊙	Press	Prun	Flashing
8.	⊙	Press	PCAL	Running of the pre-calibration
9.		End of pre-calibration	Prn.1 - Prn.F 	Counts pre-run 1-15 (F)
	⊙	Press	Prn.?	Early interruption of the pre-runs (possible from the 6. pre-run)
10.		End of pre-run	CAL	Running of the calibration
		End of calibration	-??-	Number of the colour frames
	◀	Press (if the calculated number of colour frames is wrong)	-??-	Reduces the amount of colours (max. 2 possible)
	▶	Press (if the calculated number of colour frames is wrong)	-??-	Raises the amount of colours (max. 2 possible)
11.	⊙	Press	-??-	Confirm
12.			c001	Start address End of the loading procedure

If the length of the gel string is incorrect, the scroller will show a wrong quantity of calculated colour frames. You will find the correct measurements of the single colour frames for each PRO Colour Changer on page 2.

Start address


Addressing:

The start address always refers to the colour change. You can adjust the channels for fan- and motor-remote control individually.

Key/Sequence	Action	Display (?- for individual value)	Display/Action
⊙	Press and hold until	□???	Flashing
◀	Press or hold	□???	Count downwards
▶	Press or hold	□???	Count upwards
⊙	Press	□???	Confirmation of new address
×	Return to the prior menu		

Gel positioning

Full- and Halfcolour mode (Frame by Frame):

Key/Sequence	Action	Display (?- for individual value)	Display/Action
× ◀ ◀ ◀	Press in succession	FbF.?	
		Mode	Colour mode
		FbF.□	Out (free positioning)
		FbF.H	Halfcolour mode
		FbF.F	Fullcolour mode
Key/Sequence	Action	Display (?- for individual value)	Display/Action
⊙	Press	FbF.?	Flashing
◀	Press	FbF.?	Count modes downwards
▶	Press	FbF.?	Count modes upwards
⊙	Press	FbF.?	Confirmation of new mode
×	Return to the prior menu		

A dot running from left to right within the address display indicates fullcolour mode. The halfcolour mode will be indicated by a dot sequence (1-2) within the address display.

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General functions

Key functions during powering up the scroller:

Key/Sequence	Action during the procedure of power up	Display (?- for individual value)	Display/Action
◀ ▶	Press and hold both keys while powering up the scroller	Load -00-	Reset to factory parameters incl. information „no gel string is loaded“
▶	Hold while powering up the scroller	Loc	Locks the Scroller
▶	Hold while powering up the scroller	uLoc	Un-locks the Scroller

Information display:

Display	Meaning
USED	Chosen address is already used by the scroller
H 1-C	Colour address is outside the available DMX-sector
H 1-S	Motor address is outside the available DMX-sector
H 1-F	Fan address is outside the available DMX-sector
H 1-r	Remote address is outside the available DMX-sector

LED-display:

LED-Display	Meaning
green	Valid DMX signal is on
red	Scroller is running in auto-mode
yellow	Problem, but the scroller is still working
Alternating red/green	Error, Scroller does not work any longer Press × for abortion

LED's in the display:


Display	Meaning
Small dot	Display is switched off, DMX is on
Small dot, flashing	Display is switched off, no DMX
Dot is running from left to right	Fullcolour mode
Dot sequence (1-2) is running from left to right	Halfcolour mode

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Fan control

Adjustment of fan speed:

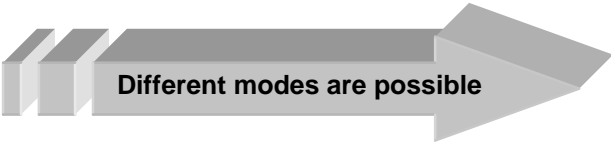
Key/Sequence	Action	Display (?- for individual value)	Display/Action
× ◀	Press in succession	<i>Fbn.?</i>	
		Mode	Fan speed
		<i>Fbn.0</i>	Out
		<i>Fbn.L</i>	Low
		<i>Fbn.H</i>	Half
		<i>Fbn.F</i>	Full
		<i>Fbn.d</i>	Speed is adjustable via DMX
Key/Sequence	Action	Display (?- for individual value)	Display/Action
⊙	Press	<i>Fdn.?</i>	Flashing
◀	Press	<i>Fdn.?</i>	Counts modes downwards
▶	Press	<i>Fdn.?</i>	Counts modes upwards
⊙	Press	<i>Fdn.?</i>	Confirmation of new mode
×	Return to the prior menu		

Adjustment of the DMX-address for fan speed:

Key/Sequence	Action	Display (?- for individual value)	Display/Action
		<i>Fdn.d</i>	
⊙	Press	<i>F.???</i>	Flashing
◀	Press	<i>F.???</i>	Counts downwards
▶	Press	<i>F.???</i>	Counts upwards
⊙	Press	<i>Fdn.d</i>	Confirmation of new mode
×	Return to the prior menu		

Motor control

Adjustment of motor speed / gel speed:

Key/Sequence	Action	Display (?- for individual value)	Display/Action
× ◀ ◀	Press in succession	SPd.?	
		Mode	Motor speed
		SPd.0	Out
		SPd.L	Limited internal
		SPd.d	Speed is adjustable via DMX
Key/Sequence	Action	Display (?- for individual value)	Display/Action
⊙	Press	SPd.?	Flashing
◀	Press	SPd.?	Counts downwards
▶	Press	SPd.?	Counts upwards
⊙	Press	SPd.?	Confirmation of new mode
×	Return to the prior menu		

Adjustment of internal limit for motor speed:

Key/Sequence	Action	Display (?- for individual value)	Display/Action
		SPd.L	
⊙	Press	L ??	Flashing
◀	Press	L ??	Counts downwards in 5% steps
▶	Press	L ??	Counts upwards in 5% steps
⊙	Press	SPd.L	Confirmation of new mode
×	Return to the prior menu		

Adjustment of DMX-address for motor speed:

Key/Sequence	Action	Display (?- for individual value)	Display/Action
		SPd.d	
⊙	Press	S.???	Flashing
◀	Press	S.???	Counts downwards
▶	Press	S.???	Counts upwards
⊙	Press	SPd.d	Confirmation of new mode
×	Return to the prior menu		

All Colour Changers of the PRO Range offer extensive functions with regard to configuration and special features, which are being operated via the integrated 4-figure LED display. An external power supply is required for operation.

6" PRO Colour Changer

The extremely compact 6" PRO Colour Changer suits all smaller luminaires with a front aperture of up to 127 mm, especially the ETC Source 4. The Colour Changer is mounted to the luminaire via an adaptor plate with integrated heatshield (Rosco heatshield), which is available in 2 different sizes. The operation without heatshield reduces the durability of the colour string considerably and is not recommended. The unit can run up to 33 single colours. The operation and menu guide is nearly the same for all PRO Colour Changers. (Please find all details in the Operator 's manual.)

An external power supply is required for operation. The Scroller is delivered with heatshield adaptor and safety cable. Data cable, power supply and colour string are not included.

Technical data	
Adaptor sizes: 159 x 159 / 190 x 190 mm	
Maximum number of colours:	33
Start-to-end string movement:	2,9 s
Front aperture Ø:	154 mm
Rear aperture Ø:	127 mm
Power/data Connector style:	XLR4
Weight:	1,9 kg
Measurements:	285 x 243 x 87 mm
Supply voltage:	24 V (PSU)

Art.No.	Description
RCC3601A	6" PRO with heatshield adaptor 159x159 mm (6,25") incl. heatshield
RCC3601B	6" PRO with heatshield adaptor 190x190 mm (7,5") incl. Heatshield
060990	Colour String, 33 colours for 6" PRO
060974	Colour String, 16 colours for 6" PRO
060973	Colour String, 11 colours for 6" PRO
020641	Barndoor for 6" PRO
RCC2016	Heatshield adaptor 159x159mm (6,25") incl. Heatshield
RCC3616	Heatshield adaptor 190x190 mm (7,5") incl. Heatshield

8" PRO Colour Changer

The 8" PRO Colour Changer suits all medium-size luminaires with a front aperture of up to 192 mm. The Scroller is mounted via an universal adaptor, that can be adjusted to a variety of different standard sizes. The unit runs up to 33 single colours with extremely smooth colour changes and most precise positioning thanks to the high resolution of the built-in electronics. The operation and menu guide is nearly the same for all PRO Colour Changers. (Please find all details in the Operator 's manual.) An external power supply is required for operation. The Scroller is delivered with universal adaptor and safety cable. Data cable, power supply and colour string are not included.

Technical data	
Adaptor sizes: 185, 190, 198, 210, 215, 230, 240, 245, 255 mm	
Maximum number of colours:	33
Start-to-end string movement:	3,6 s
Front aperture Ø:	215 mm
Rear aperture Ø:	192 mm
Power/data Connector style:	XLR4
Weight:	2,2 kg
Measurements:	333 x 303 x 87 mm
Supply voltage:	24 V (PSU)

Art.No.	Description
RCC3001	Colour Changer 8" PRO
RCC3056	New Universal Adaptor for 8" PRO
RCC3057	Set of 4 cranked hooks for Uni. Adaptor
060989	Colour String, 33 colours for 8" PRO
060976	Colour String, 16 colours for 8" PRO
060975	Colour String, 11 colours for 8" PRO
010823	Barndoor for 8" PRO
RCC3616	Heatshield adaptor 190 x 190 mm (7,5"), incl. Heatshield
060922	Heatshield for 8" PRO

12" PRO Colour Changer

The 12" PRO Colour Changer suits nearly all larger luminaires up to 2,5 KW with a front aperture of up to 266 mm. The Scroller is mounted via an universal adaptor that can be adjusted to a variety of standard sizes. The 12" PRO can run up to 25 single colours, while the high resolution of the built-in electronics guarantees for extremely smooth colour changes and most precise positioning. An external power supply is required for operation.

The unit is delivered with universal adaptor and safety cable. Data cable, power supply and colour string are not included.

Technical data

Adaptor sizes:	240, 245, 255, 270, 275, 285, 290, 295, 300, 305 mm
Maximum number of colours:	25
Start-to-end string movement:	3,5 s
Front aperture Ø:	304 mm
Rear aperture Ø:	266 mm
Power/data Connector style:	XLR4
Weight:	2,9 kg
Measurements:	416 x 393 x 87 mm
Supply voltage:	24 V (PSU)

Art.No. Description

RCC3801	Colour Changer 12" PRO
RCC3822	New Universal Adaptor for 12" PRO
060991	Colour String, 25 colours for 12" PRO
060978	Colour String, 16 colours for 12" PRO
060977	Colour String, 11 colours for 12" PRO
060920	Barndoor for 12" PRO

15" PRO Colour Changer

The 15" PRO Colour Changer suits bigger, high-performance luminaires with a front aperture of up to 380 mm. It can run up to 25 big-size single colour frames. The Scroller is mounted via an universal adaptor plate with round aperture, which can be adjusted to many standard sizes. The complete front and back bodies can be exchanged in order to enable the combination with a 4-Lite Blinder or the mounting of accessories of various manufacturers.

The 15" PRO Colour Changer for 4-Lite Blinder shows a square aperture on front and back. This unit comes with mounting adaptors for variable mounting possibilities onto a 4-Lite Blinder. The Scroller can be mounted horizontally for vertical scrolling.

The only difference with regard to the operation of the Scroller in comparison to the other PRO Colour Changers is the tensioning of the colour string – see page 6.

An external power supply is required for operation. Data cable, power supply and colour strings are not included in the delivery specification.

Technical data

Universal adaptor sizes 15" PRO:	313, 322, 343, 355, 360, 370, 382, 396, 402, 412 mm
Front aperture Ø:	380 mm
Rear aperture Ø:	380 mm
Measurements 15" PRO:	519 x 600 x 98 mm
Weight 15" PRO:	8,5 kg
Adaptor sizes 15" PRO f. 4-Lites:	400 x 400 mm
Front aperture Ø:	395 mm
Rear aperture Ø:	395 mm
Measurements 15" PRO f. 4-Lites:	520 x 570 x 95 mm
Weight 15" PRO for 4-Lites:	6,2 kg
Maximum number of colours:	25
Start-to-end string movement:	6,4 s
Power/data Connector style:	XLR4
Supply voltage:	24 V (PSU)

Art.No. Description

RCC5000	Colour Changer 15" PRO
RCC5070	Front with square aperture 15" PRO
RCC510	Adaptor for Thomas 4-Lite Blinder
RCC5010/4L	Colour Changer 15" PRO for 4-Lites (incl. square front + adaptor for Thomas 4-Lite)
RCC505	Universal adaptor for 15" PRO
RCC5060	15" PRO Front plate with round aperture and universal adaptor for 5K barndoor
060993	Colour String, 25 colours for 15" PRO
060982	Colour String, 16 colours for 15" PRO
060985	Colour String, 11 colours for 15" PRO

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8-Lite PRO Colour Changer

The 8-Lite PRO Colour Changer for 8-Lite Blinders corresponds with the other PRO Colour Changers in terms of operation, configuration and nearly all other functions. (Please find all details in our Operator 's manual.) You will find the only difference in tensioning the colour string – see page 6.

The Scroller has a square aperture for 8-Lite Blinders. It can be mounted to Major 8-Lite Blinders without further accessories, while different adaptor versions for other types of 8-Lite Blinders are available.

The unit is delivered with safety cable for the front; but without data cable, power supply and colour string.

Technical data

Universal adaptor sizes:	388 x 680 mm
Maximum number of colours:	25
Start-to-end string movement:	7 s
Front aperture Ø:	680 x 395 mm
Rear aperture Ø:	680 x 395 mm
Power/data Connector style:	XLR4
Weight:	8,5 kg
Measurements:	519 x 830 x 98 mm
Supply voltage:	24 V (PSU)

Art.No. Description

RCC4100	Colour Changer 8-Lite PRO
060992	Colour String, 25 colours for 8-Lite PRO
060986	Colour String, 16 colours for 8-Lite PRO
060983	Colour String, 11 colours for 8-Lite PRO

Maxi PSU

The Maxi PSU is power supply and DMX splitter for 24 "small" Colour Changers (6", 8" and 12" PRO) or 12 "big" units (15" and 8-Lite PRO). The unit is delivered with M10 bold and mains cable with mounted Schuko plug; data cable is not included.

Technical data

Supply voltage:	230 V (E); 110 V (U)
Amount of scrollers per PSU:	12/24
Mains connector:	CEE 22
Output connectors:	4 x XLR4
Weight:	3,5 kg
Measurements:	293 x 82 x 250 mm

Art.No. Description

RCC125E	Maxi PSU, 230 V
RCC125U	Maxi PSU, 110 V
270410	Halfcoupler 2" Lightweight
270704	Safety cable 2 mm, 60 cm

Micro PSU

The Micro PSU is power supply and DMX splitter for 6 "small" Colour Changers (6", 8" and 12" PRO) or 3 "big" units (15" and 8-Lite PRO).

The unit is delivered with M10 bold and mains cable with mounted Schuko plug; data cable is not included.

Technical data

Supply voltage:	85-260 V
Amount of scrollers per PSU:	3/6
Mains connector:	CEE 22
Output connector:	1 x XLR4
Weight:	1,4 kg
Measurements:	178 x 72 x 136 mm

Art.No. Description

RCC141	Micro PSU
270410	Halfcoupler 2" Lightweight
270704	Safety cable 2 mm, 60 cm



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This manual is valid from the 1st of July 2007. All previous manuals are herewith not valid any longer.

All technical specifications are subject to change without notification.

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