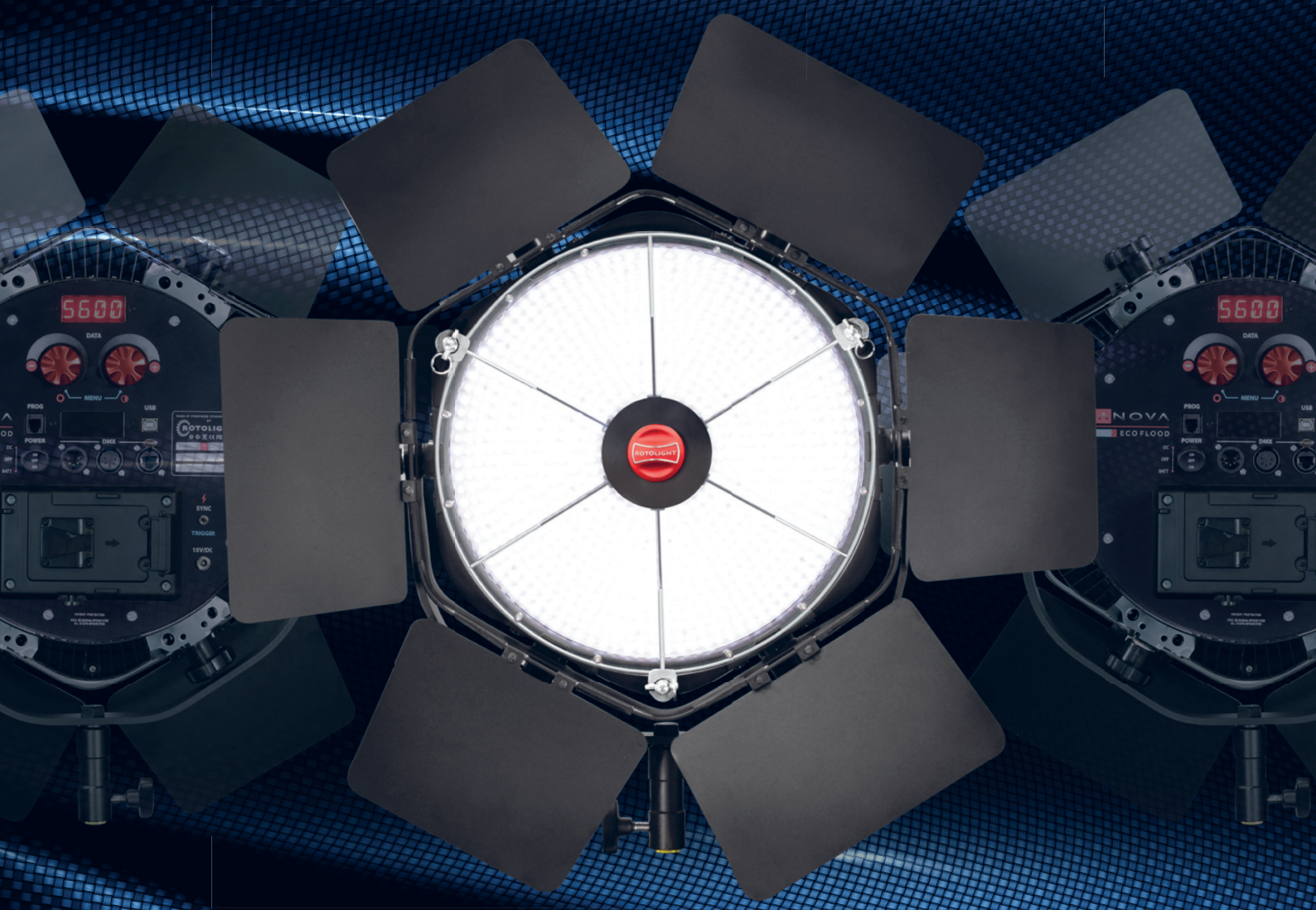
ROTOLIGHT

ANOVA PRO II

ANOVA PRO 2 USER MANUAL

AWARD WINNING LED STUDIO / LOCATION LIGHT



DESIGNED FOR BROADCAST / ENG, FILMMAKING & PHOTO • FLICKER FREE, BI COLOUR (6300-3150K), >96 CRI

BEST IN CLASS POWER OUTPUT, >10,700 LUX AT 3 FT • CINESFX™ CUSTOM LIGHTING FX (FIRE, LIGHTNING, TV)

UNRIVALLED BATTERY PERFORMANCE, <72W CONSUMPTION • HIGH SPEED SYNC FLASH (1/8000TH), NO RECYCLE TIME

INTEGRATED ELINCHROM 'SKYPORT' HSS FLASH RECEIVER • EXPOSURE FX (X-FX), INTRAFRAME STROBOSCOPIC FX

version 4.6

WWW.ROTOLIGHT.COM

MADE AT PINEWOOD STUDIOS, UK

© Jean Reno by Mark Mann lit with the Anova PRO 2

Contents

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1 Whats New in the Anova PRO 2?

FOREWORD: About the Anova PRO 2

Thank you for purchasing Rotolight Anova PRO 2, the world's most advanced LED floodlight.
Now up to 70% brighter and featuring 'best in class' colour rendering.

Rotolight Anova PRO 2 is the ultimate LED studio/location light designed for the most demanding of professionals. As one of the brightest LED lights ever launched in its class, the Anova PRO 2 delivers 10,700 lux at 3 feet and is packed with innovative features for television, film production, and photography. The Anova PRO 2 is the 4th generation of Rotolight's award winning studio/location light, offering 70% more power output than its predecessor and the best power to consumption ratio in the industry. The Anova PRO 2 is one of the most energy efficient LED panels ever designed with a mere 72W consumption; reducing operating costs for TV studios, whilst providing unrivalled battery performance on location. The Anova PRO 2 also includes a brand-new **EXPOSURE EFFECTS (X-FX)** feature set, delivering multi-flash 'intra-frame' Imaging for photography that allows users to capture multiple frames of movement within one exposure.

Anova PRO 2's Bi-Colour LED system with **AccuColour™** delivers outstanding colour reproduction (CRI>96, TLCI 91) eliminating the need for expensive post production, whilst featuring electronically adjustable colour temperature in both flash and continuous modes (6300-3150K). Anova PRO 2 has a truly 'flicker free' output, thanks to its unique continuous LED drive system, and can be used for ultra high frame rate photography or cinematography at any frame rate.

Anova PRO represents the pinnacle of LED technology, with many unique innovations: **CINESFX™** provides a powerful arsenal of Cinematographic Lighting FX (CineSFX) with remote wireless trigger functionality for use on set or location, and you can use DMX or wDMX to connect mutiple slave ANOVAS for studio sized SFX. **TRUE APERTURE DIMMING™** calculates and displays the correct aperture (F-Stop) for your subject at a given distance. **DESIGNER FADE™** provides custom fade up / fade down practical production effects. Rotolight has collaborated with Elinchrom to integrate its 'Skyport' 2.4Ghz HSS wireless flash receiver into Anova PRO 2, eliminating the need to purchase a standalone flash receiver, whilst providing rock-solid reliability, range, flexibility and control for multiple off camera lighting setups. Skyport enables users to wirelessly control up to 10 lights, in four groups at up to 200m(656ft) with the new Rotolight Skyport **High Speed Sync Flash** which synchronizes your Anova PRO 2 to your camera shutter release (at up to 1/8000th of a second) for use in a traditional photographic workflow, featuring both a colour tuneable flash (Guide Number 36) and modelling light, with hyper fast sync and no recycle time for maximum frame rate stills.

Under the hood, Anova PRO 2 continues to excel, with Dynamic Drift Stabilisation **(DDS)** to maintain your perfect colour temperature throughout the dimming range, and the extraordinary **FX-SLAVE DMX** software which automatically adjust the DMX frame rate to optimise Dmx performance for Sfx and Flash (up to 15 times faster than normal Dmx). Rotolight wDMX is also included, allowing up to 512 wireless slave lights to be controlled directly from one Anova PRO 2, with a DMX Combine facility to allow joint mixing console and Anova control.

Powered by V-Lock or mains power, **Anova PRO 2™** delivers a powerful output (up to 10700 Lux at 3 feet in continuous mode), whilst using 94% less energy than a standard tungsten bulb. Anova PRO 2 delivers unparalleled versatility, superior colour rendering and gorgeous soft light output and is ideal for cinematographers, videographers and photographers alike. Available in either bi-colour (6300K-3150K) 'STANDARD' 50° beam angle (for greater straight line output), 110 'ULTRAWIDE' (for soft-fill, or chromakey) or fixed colour 5600K.

NEW FEATURES IN ANOVA PRO 2

Increased output

Anova PRO 2 is 70% brighter than the previous Anova PRO model.

More effects

14 special lighting effects now including 'chase' mode, which uses DMX to control a line of lights to simulate a moving light source e.g. streetlights.

DMX & wDMX

Anova PRO 2 now includes Rotolight wDMX which can be used to control up to 512 wireless slaves from one Anova PRO 2 master.

There is now a built in DMX Combiner allowing the user to send Cabled DMX to the Anova PRO 2, and have it add data from the Cinematic Special Effects (SFX) and re-broadcast this combined signal DMX data as Rotolight wDMX. This is called 'MIX' in the CNTL/Mstr menu.

Enhanced DMX performance, using a Rotolight technology called FX Slave, which allows for more precise synchronisation of SFX and flash between master and slave Anova PRO 2s.

Exposure Effects (X-FX)

Provides an easy to use, stroboscopic and delay, intraframe multi-exposure system for creating multiple exposure images for sport/action/art etc.

Elinchrom 'Skyport' receiver

Built in SKYPORT HSS wireless control allows synchronised HSS flash to 1/8000th second and full wireless remote control of SFX (up to 200m (656ft) away.

RJ45 DMX socket (in/out)

for structured studio DMX cabline.

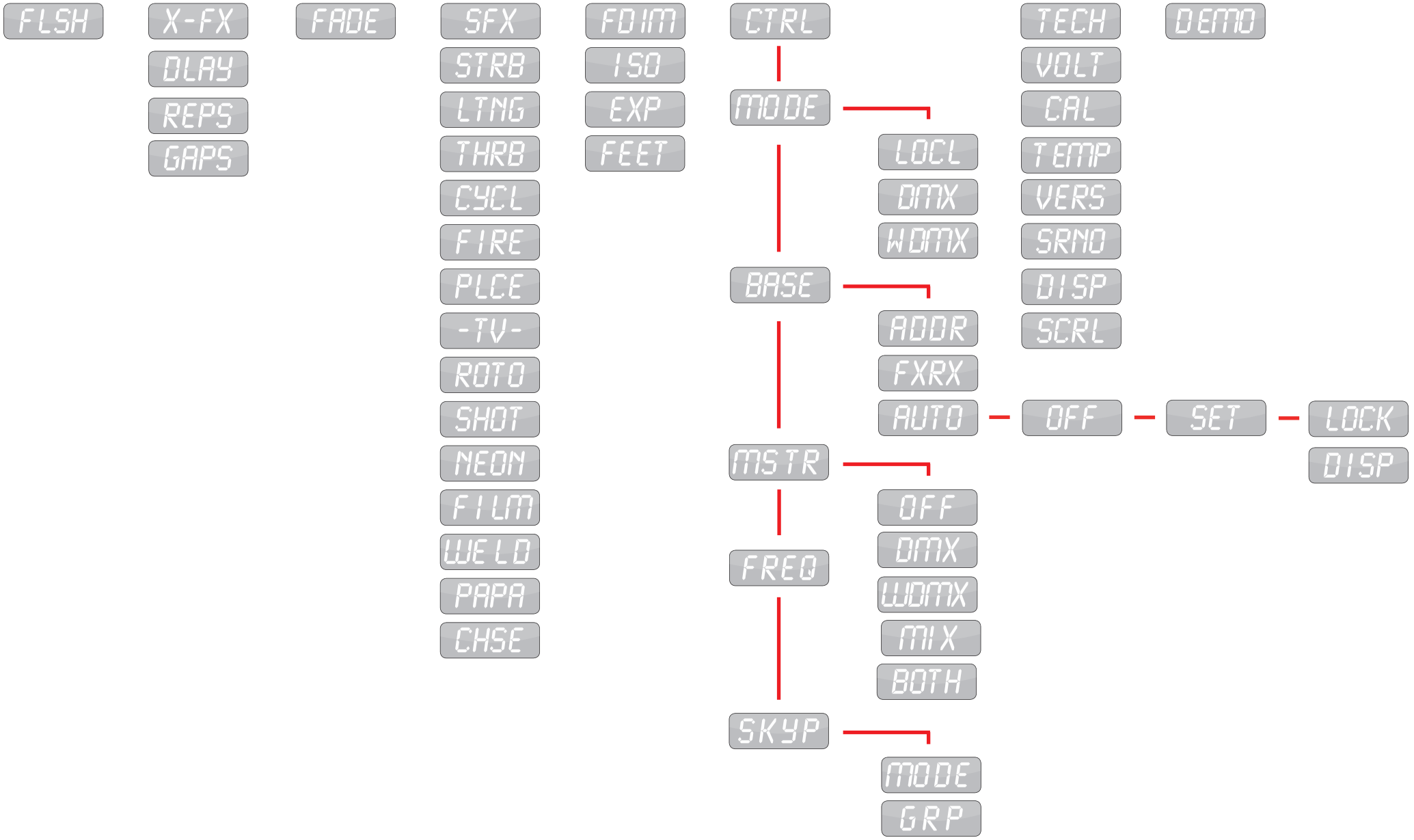
Auto set-up

Allows DOP's, gaffers and other lighting technicians to quickly configure DMX channel settings on large groups of lights with one click.

Gillian Anderson photographed by Mark Mann for Sundance Film Festival

Celebro Studios London - Anova PRO equipped

MENU


FLSH
X-FX
DLAY
REPS
GAPS
FADE
SFX
STRB
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SHOT
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LOCL
DMX
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FXRX
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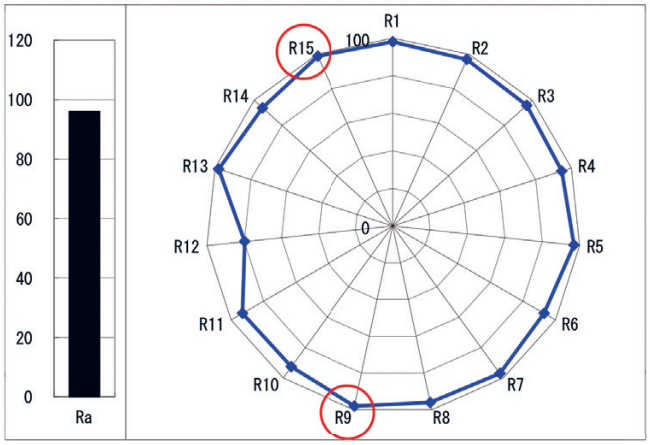
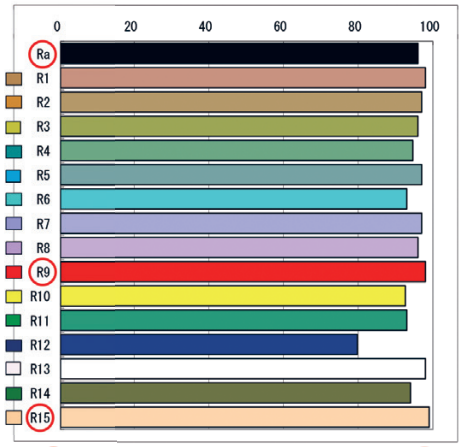
MODE
GRP
TECH
VOLT
CAL
TEMP
VERS
SRNO
DISP
SCRL
DEMO

ANOVA PRO POLAR PATTERN & CRI TEST

Ra	96
R1	98
R2	97
R3	96
R4	95
R5	97
R6	93
R7	97
R8	96
R9	98
R10	93
R11	93
R12	80
R13	98
R14	94
R15	99



CRI 96



Ev	x	y	Tcp(JIS)	duv(JIS)	Peak Wavele	Ra	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
10700	0.3757	0.3554	5602	-0.0090	452	96	98	97	96	95	97	93	97	96	98	93	93	80	98	94	99

TECHNICAL SPECIFICATION

ROTOLIGHT ANOVA PRO 2	
BEAM ANGLE	50 degree | 110 degree
TLCI (Television Lighting Consistency Index)	97 Measured at 3200K using UPR Tek C600
OVERALL CRI(Ra) SKINTONE CRI (R15)	CRI=> 96 (Skintone R15, CRI=98)
POWER CONSUMPTION @100% OUTPUT	72 Watts @100% Output 15V DC
LUX at 3FT(0.9m) *F-STOP at ISO 100/200/400	10,700 f11 / f15 / f21
LUX at 6FT(1.82m) *F-STOP at ISO 100/200/400	2,710 f6 / f8 / f11
LUX at 9FT(2.74m) *F-STOP at ISO 100/200/400	1,260 f4 / f5.6 / f8
CONTROL	Local, DMX or Skyport wireless, with Dynamic Drift Compensation & Thermal Monitoring
WEIGHT	2.47 KG (body only) 3.34KG with Yoke
DIMENSIONS	440mm (W) x 493mm (H) x 107mm (D)
MOUNTING	TVMP Bracket via Yoke Optional Double Yoke, T-Connector Plate
PEAK OUTPUT	10700 Lux at 3ft (measured at midpoint of 4228 kelvin)
LUMINOUS FLUX	5580 Lumens
COLOUR RANGE	3150K-6300K
INCLUDED FILTERS	216 - Full Diffuser, 250 - Half Diffuser 184 - Cosmetic Peach Skin Tone 279 - 1/8 Magenta
BATTERY LIFE	150,000 flashes or 2 hours (continuous mode)
Max Shutter Sync Speed Flash Duration at Max Power	1/8000s Adjustable from 1/50th - 1/2500th

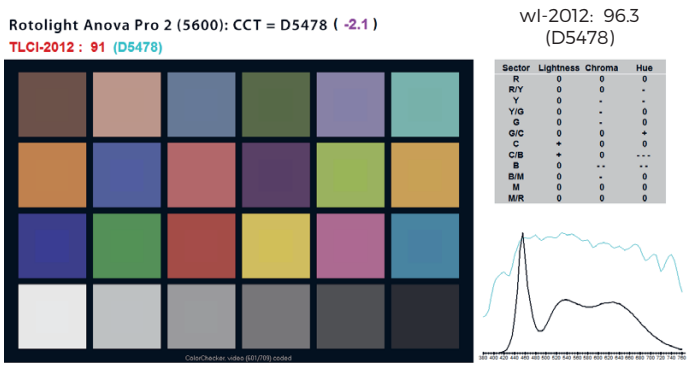
* F-stop measured using Rotolight V-lock battery in Flash Mode at 4200K, 1/60th Shutter Speed

PHOTOMETRICS	LED Angle	3 ft. / 0.9m		6 ft. / 1.82m		9 ft. / 2.74m	
Anova PRO 2 (at mid point)	50°	994fc	10700 lux	252fc	2710 lux	117fc	1260 lux

Anova PRO 2 sets a new standard for professional LED lighting. 70% brighter than the previous Anova , it delivers 10,700 lux at 3 feet, yet offers outstanding battery performance. Packed with innovative features for filmmakers and photographers, Anova PRO 2 includes an updated suite of Cinematic SFX.

Integrated Elinchrom Skyport HSS flash receiver (with colour tuneable HSS flash and modelling light at 1/8000th with no recycle time), so you never miss a shot. AccuColour LED's deliver a CRI of >96 with perfect skin tones and a gorgeous catchlight. Finally, RJ45 DMX connectors have been added for studios.

ROTOLIGHT LED TLCI TEST RESULT



3 What's in the box

Your Anova kit includes the following:

1 x Rotolight Anova PRO 2™
1 x Yoke with standard TVMP Bracket
1 x Rotolight Universal power adapter with regional mains cable
1 x Gel Filter Holder
1 x User Anova PRO 2™ manual
1 x Anova PRO 2™ Standard Filter pack:
1 x 216 Full Diffuser (1.5 Stops)
1 x 250 Medium, Half White Diffuser (3/4 Stops)
1 x 184 "Cosmetic Peach" Diffusion
1 x 279 1/8th Minus Green (Magenta)

4 Recent Awards

Technical and Scientific Achievement Award

Guild of Television Camera Professionals

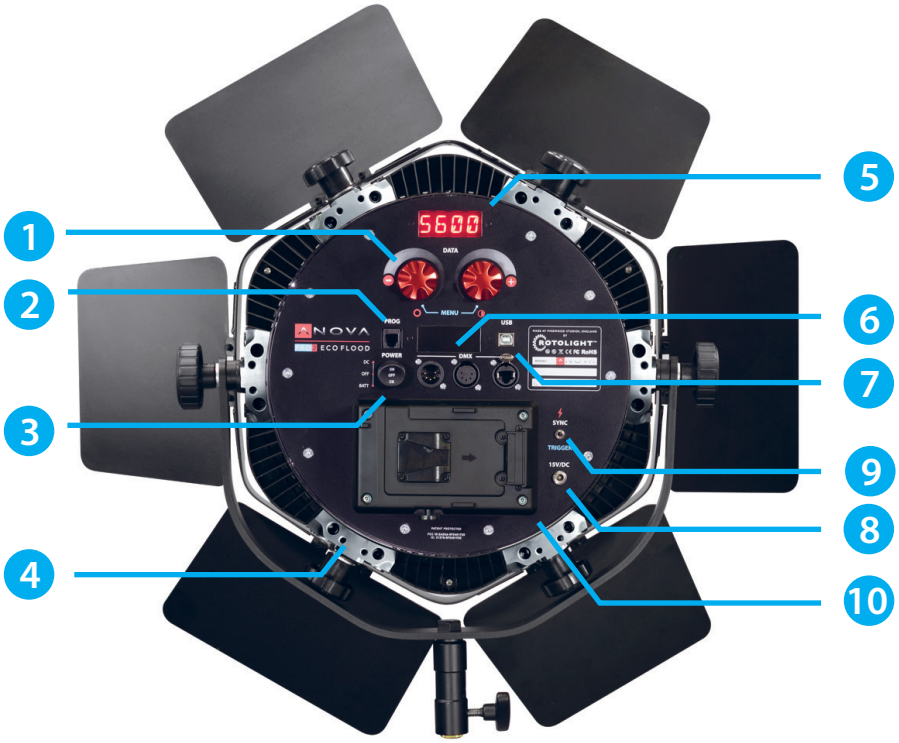
Editors Choice

Best Lighting Innovation

Technical Award

Lighting Engineering

5 Hardware Notes



1 Rotary encoder knobs / switches

Rotate to increase (+) or decrease (-) displayed value. Click to select. Press, hold and rotate for 'fast' data entry. Click both switches together to enter MENU mode. The left rotary knob controls brightness (BRI) and the right knob controls colour (COL). NB: To reset the device to the Factory Default Values, power up the Anova PRO 2 whilst holding down the left encoder switch, it will display 'ZERO' (reset factory defaults), and you select either yes or no to reset the unit to factory defaults.

2 Firmware programming socket

Firmware programming socket. This is not intended for use by users, and is used to install firmware updates by the manufacturer or its distributors.

3 Power switch

Select DC for an attached DC Input, Off, or Battery for the V-Lock Plate.
NB: you can use standard V-Lock Batteries or Anton Bauer Goldmount Batteries with a QR-A200 plate adapter.

4 Utility blocks

Use these to connect the yoke, or optional barn doors. There are additional mounting holes on the rear face and either side of the main mounting point, these can be used to fix the optional T-Bar connector plates which join the lights together. Anova PRO 2 is designed with an outer 'Honeycomb' shape so it can easily be 'tesselated' into a panel/wall/ring of lights. Rotolight Inc at Pinewood Studios, England (+44 1753 422750) are happy to quote on custom Yokes for larger arrays of Anova lights. The Anova Yoke is fitted with a 'TVMP' (TeleVision Motion Picture) bracket. This will fit a standard 'Junior' Lighting support stud as used in film and televison studios (16mm). The TVMP Bracket on the Anova has two positions for the retaining screw, the higher position is for a junior stud, the lower position is so you can mount the Anova on a 3/8 baby stud on a normal studio lighting stand.

(Please check that the stand is designed to take the weight of the Anova, aproximately 2.6kg without barn doors or 4.1kg with yoke and the barn doors fitted.)

5 Display

This displays the Menu item or selected value.

6 DMX in/out

The USB socket will be used for future firmware updates, where applicable. Please refer to www.rotolight.com for info on future updates for Anova PRO 2.

7 USB port

The USB socket will be used commonly in structured studio cabline upgrades for future firmware but is not currently intended for use by users, please refer to **www.rotolight.com** for info on future updates for Anova PRO 2.

8 DC input socket

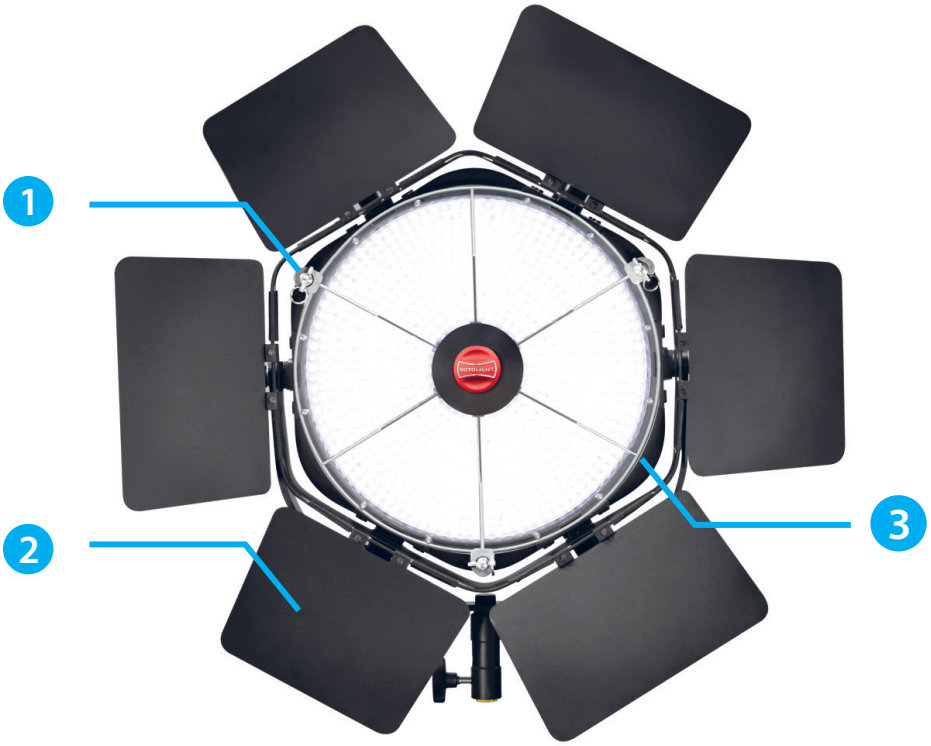
Use this 2.1mm DC socket to connect the supplied 15volt 90W AC/DC converter. You can also run Anova from a 14.4volt D-Tap connector via this socket. Only use the recommended AC/ DC adapter. Never exceed the recommended voltage (13-17 volts DC). Make sure you use the 'Rotolight velcro strap' cable ties to secure the Power connector / adapter to your light stand, so there is no strain on the 2.1mm DC socket, otherwise damage may occur to the socket.

9 Flash sync and trigger input port

This 3.5mm mono jack socket located on the rear of Anova PRO 2, allows you to connect third party flash receivers or transceivers, which have a PC sync or 3.5mm flash output, using a PC sync/3.5mm cable (available seperately). It also doubles as the right encoder switch, enabling CineSFX and Designer Fades to be wirelessly triggered. For best results however, use the Rotolight HSS Transmitter' (RL-HSS-TX) (by Elinchrom) which utilises the in-built Skyport flash receiver, and is available now for Sony, Canon , Nikon, Olympus and Panasonic cameras (Fuji coming soon) from Rotolight.com and all major camera stores.
The Anova PRO 2 has a max flash sync speed of 1/8000th of a second, and has the capability of generating a flash pulse at 250% of its nominal power (equivalent to >2 stops greater power). You can match the colour of the flash and modelling light to your ambient light settings, and you can have the Anova PRO 2 act as a modelling light whilst simultaneously flashing from your trigger input with no recycle time at any stills frame rate.

10 V-Lock battery plate

Connect standard (14.4 volt) V-Lock batteries or Anton Bauer Goldmount Batteries with a QR-A200 plate adapter. To release the battery, press the button on the bottom of the plate. For best performance, use the Rotolight 95Whr/ Li-ion V-Lock battery, optimised for the Anova PRO 2, available from **www.rotolight.com**



1 Accessory mounting spigots

The three spigots on the front face of Anova Pro 2 are used to mount the 'Gel Filter Frame Holder' (lower position) using three 'Ball Lock Pins', and the upper mounting position is used to mount optional accessories for the Anova Pro 2, e.g. Honeycomb Louver, SoftBox or Light Shaping Diffuser (available separately).

2 Optional barn doors

The barn doors install using four of the tensioner knobs on the main mounting points of the utility blocks. The six sided barn doors have two types of shutter shapes, the three shutters which become narrower at the outer edges close in first, and the three trapezoid shutters which become wider at the outer edge close in after the other types, this enables the Anova to create soft hexagon shaped pools of light when the doors are folded inwards. The doors can be folded 'flat' at 90 degrees to the body.

The flight case will store the Anova PRO 2 with the gel frame holder, louver and barn doors fitted (closed).

3 Gel frame holder

The 'gel filter frame holder' mounts onto the spigots with the ring and spokes closest to the protective window glass, and is secured in place using three 'ball lock pins' at the lowest positions on the spigots. You can carefully slide a precut filter gel underneath the gel frame or, alternatively you can remove two of the pins and lift the frame up slightly to install the filter gel. The filter gels are stored in the gel sleeve.

6 Anova PRO 2 basic operation

To operate Anova PRO 2 you will find two red rotary controls, which are also switches, and a DC on/off switch, these are all located on the rear of Anova PRO 2.

Power

To power up Anova PRO 2 click the power switch (located next to the DMX sockets).
Anova PRO 2 can be powered by a broadcast V-lock battery or Anton Bauer Battery with a QR200A adapter, or from a DC source in the range of 7v-15v (i.e. optional Car 12v Socket, D-Tap from a broadcast battery), or from the supplied AC Adapter. The DC switch has two positions, switch up to select an external source, or down to select the V-lock battery. Note: if you are connecting an external DC source make sure the power is the correct polarity, to avoid damaging your Anova PRO 2, better still, use the supplied Rotolight adapter.
On power up, you will see 'ROTOLIGHT Anova PRO 2' scroll across the screen, you can interrupt this anytime by operating one of the control knobs.
To power Anova PRO 2 Down , click the power switch back to mid (OFF) position.
Note: Anova PRO 2 stores all the user settings in non-volatile RAM so it will remember your last used settings.

Brightness

You can adjust the brightness output of Anova PRO 2 by rotating the left rotary encoder.
If you rotate the knob quickly it will speed up the data input. You can press, hold and rotate to deliberately adjust the brightness in steps of 10% (fast mode), or spin the control to move in hyper fast steps. Simply rotating the knob will adjust the brightness in steps of 1%.
Anova PRO 2 has a dimming range of 0% -100% and is completely flicker free at any brightness level.
(Note: there is a special mode called 'True Aperture Dimming' (F-DIM) , available in the MENU section, which will display the brightness as an F-Stop, based on your camera exposure settings – see 'True Aperture Dimming' page 20.)

Colour

You can adjust and accurately display the colour temperature (CT) of Anova PRO 2 by rotating the right control knob. If you rotate the knob quickly it will speed up the data input. You can press, hold and rotate to deliberately adjust the colour in steps of 100kelvin (fast mode) or spin the control to move in steps of 1000 kelvin. Simply rotating the knob will adjust the brightness in steps of 10 kelvin.
Anova PRO 2 has a colour temperature range of 3150 kelvin (tungsten) up to 6300 kelvin (direct daylight).
Anova PRO 2 has a special technology called 'Dynamic Drift Stabilisation' which maintains the colour temperature through the entire dimming range. A red dot will appear if you select the midpoint colour, which indicates the point at which Anova can deliver its optimum brightness output.

Reset

You can reset all the user parameters back to factory default in Anova PRO's non-volatile memory by holding down the left red control switch whilst simultaneously powering Anova PRO ON.
The word 'ZERO' will be displayed, select Y for yes (reset all data), or N for NO.

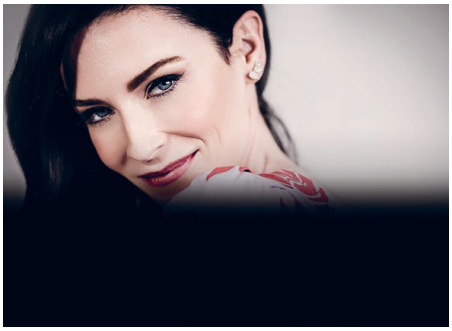
7 Advanced operation (MENU)

You can enter the MENU mode by pressing both red encoder switches together (or clicking and holding down the left switch followed by the right control switch). If you wish to leave MENU, you can return to the basic operation (BRI / COL) by pressing both control switches together again.
In the MENU there are eight optional submenus , which you can select by rotating the left knob:- 'FLSH' , 'X-FX', 'FADE', 'SFX ', 'FDIM', 'CNTL', 'TECH' , 'DEMO'
You can enter your selected menu function by clicking the right switch.
You can leave the selected menu function by clicking the left switch, alternatively you can return to the basic operation mode (BRI /COL) at any time by pressing both switches together at the same.

Anova PRO 2 flash with modelling light

What is Rotolight High Speed Sync (HSS) ?
When shooting using flash the brightness of light on your subject is controlled using aperture, and the brightness of the background is controlled using shutter speed. Some flash guns offer variable flash 'Power' but actually vary the Flash duration to achieve this. The fastest flash sync speed of any camera is the shortest shutter speed where the whole sensor is totally exposed to the flash burst. Some DSLRs can synchronise the shutter and flash events at 1/200th second while other cameras can sync flash and shutter at 1/320th second. When you use an exposure of less than the camera's flash sync speed (i.e.higher than 1/200s) then not all of the sensor will be exposed to the flash, resulting in black bar shadows over some or all of the image. Traditional flashguns and speedlights produce a flashburst that has a power output shape similar in shape to a sharks dorsal fin.

1/200s



1/400s

1/1000s

When working in bright daylight, it is really restrictive to be limited to using shutter speeds below 1/250th, meaning that you would need to use a super high power flash to overpower the daylight. The solution is to use higher shutter speeds, so you can overpower the daylight using less power, or from farther away. This gives the photographer total control over depth of field (via aperture) and shutter speed (to freeze motion).

Working with flash at higher sync speeds liberates the photographer by giving him full creative control over depth of field, shutter speed, and overall creative composition of the exposed image. There are three high shutter speed flash sync technologies on the market, but some have significant advantages over others. These are High Speed Sync (HSS), HyperSync and Hi-Sync (HS).

High Speed Sync (HSS)

This technology was invented for working with speedlights, as it requires the flash to fire stroboscopically thousands of times as the letterbox shutter slit crosses the sensor. As a result the speedlight is behaving more like a continuous light, but at a much lower power than the normal full output. HSS therefore also uses more battery power to perform the multiple flash bursts. There can also be noticeable colour temperature variance and lower output at faster shutter speeds.

HyperSync

Pocket Wizard created this technology, and it works by triggering the flash slightly before the shutter opens, and using precise timing control, aims to synchronise the shutter travel and the flash event so that the image is evenly lit. It works best with high power flash heads that have a flash burst longer than 1/1000th of a second. HyperSync can be tricky to set up as it relies on precise timing between the flash unit and the camera. The downside of HyperSync is that under certain conditions there can be significant gradation in the illumination of the image from top to bottom. It does not work well with light meters.

Hi-Sync (HS)

Uses a process that is technically similar to HyperSync, where the flash is triggered marginally before the shutter, and allows the photographer to a reliable way to to work with high shutter speeds and shoot from distance, the downside is that if you use a flash with a faster duration, you will have a lot less power available and probably some banding in the image.

Rotolight HSS

Rotolight have taken a revolutionary approach to HSS. Their lights have the ability to flash with a power of 250% of the normal continuous maximum output, with the ability to independently vary both flash duration and flash output power, at speeds as low as 1/50th second, with incredible colour accuracy and quality, with colour tuneable flash and modelling light, and at synchronised speeds of up to 1/8000th of a second, with no recycle time. No banding, no gradation, no colour shift. The Rotolight HSS flash fires in synchronisation with the shutter, and remains at full flash power whilst the letterbox slit shutter crosses the image sensor, evenly illuminating the entire image. The advantage is that with the modelling light, you can see to focus, you can better compose the image because you can see how the shadow and colour temperature will work in the final image, and you can shoot in multiframe mode to ensure that you capture the perfect image, never missing a shot.

Because Rotolight HSS is a new unique technology, it will require a little flexibility in the way you adopt it into your workflow. It has so many advantages over traditional flash systems, that can really add some weaponry to your photographic toolkit.

Like standard HSS the flash duration extends throughout the normal X-Sync period of your camera (typically 1/60th to 1/200th second), and so the best method for freezing fast motion is to use a dark environment and adjust the flash duration to stop the action. Alternatively , use Rotolight HSS mode , where you set 1/50th duration on the flash, and let the camera freeze the action by shortening the shutter exposure duration (up to 1/8000th second).

(‘FLSH’) Flash mode

Anova PRO 2 is capable of High Speed Sync Flash (HSS, 1/8000th), and has a built in Elinchrom Skport wireless HSS receiver. For best results, use the ‘Rotolight HSS Transmitter’ (RL-HSS-TX) (by Elinchrom) available now for Sony, Canon , Nikon, Olympus and Panasonic cameras (Fuji coming soon) from Rotolight.com and all major camera stores. Capable of controlling up to 10 Rotolight Anova PRO 2’s, in four groups, the Rotolight HSS transmitter also provides wireless control of Anova PRO 2 brightness and colour temperature in both flash and continuous modes (Rotolight HSS transmitter only), and can trigger CineSFX, X-FX (Exposure FX) and Designer Fades (see Page 23/24).

USING THE FLASH MODE : Scroll to ‘FLSH’ and click the right switch to enter ‘FLSH’ mode.

Note: in order to use the flash, you must be IN flash mode (indicated by shutter speed on the display. If you see the word 'FLSH', you are not IN flash mode and must right click to ENTER flash mode)
Set your camera to manual flash mode. Anova PRO 2 is not a TTL flash, it is a manual flash with adjustable flash power, modelling light, colour temperature and duration settings.

Simple operation: set your camera into manual flash mode, refer to the F stop table (p.X) for exposure guide, take a test shot and either adjust flash power, or distance to the subject to achieve optimal exposure.
Rotate the left knob to set the desired 'modelling light' level in order to preview focus, shadow and highlights on your subject (in %, 0-100%) and compose your photograph.

(Note : Anova PRO 2 is intentionally less bright whilst in modelling light mode than regular continuous light mode, in order to make the light more comfortable for the subject and prolong battery life.)

Press, hold AND rotate the left knob to set the desired 'colour temperature' for your flash (in kelvin, from 3150-6300k – Note: as a bi-colour light, the flash will be at its brightest at midpoint around 4100K, indicated with a red dot in the display).

Rotate the right knob to set the desired duration for the flash, in shutter intervals, i.e. 1/50s, 1/60s, 1/80s, 1/100s...up to 1/2500s ('1/2K5'). TOP TIP : Note: *recommended* you can just leave the duration set to 1/50th and Anova PRO 2 will automatically adjust the duration for you if the number of frames per second requires a shorter flash.

Press, hold and rotate the right hand knob to set the flash output power, 'MAX' (=250% of MAX continuous output), '1/2' (=125%), '1/4' (=62%), 'X8' (=modelling light level x 8), and 'X16' (= modelling light level x 16. Using the X8 or X16 output allows you to use the modelling light on your Anova's to compose and balance the lights in a multilight setup , and when they flash they will keep this relationship but be 8 or 16 times brighter.

To trigger the flash from your camera (wired operation), connect a PC sync cable from your camera's PC sync port to the 3.5mm mono jack on the Anova PRO 2. (If your camera does not have a PC sync port, then you can purchase the optional 'Rotolight Accessory Shoe to PC' adapter and the PC flash sync cable, which converts your accessory shoe into a PC socket).

Note : PC sync is limited to your camera's internal sync speed (usually 1/60th up to 1/250th). IT IS NOT HIGH SPEED SYNC

Rotolight HSS trigger by Elinchrom:

To shoot in High Speed Sync, you will need an HSS wireless transmitter, such as the Rotolight or Elinchrom HSS transmitter (both are compatible with the internal receiver inside the Anova PRO 2).

Using third party triggers :
Alternatively, you can connect third party flash receivers or transceivers which have a PC sync or 3.5mm flash output, with a PC sync/3.5mm cable to the 3.5mm mono jack flash trigger input jack located on the rear of Anova PRO 2. Connect the transmitter to your camera accessory shoe (such as Godox, Phottix, Sony, Pocket Wizard, etc) and follow the instructions supplied with your transmitter.

Recommended settings for simple one-light Anova PRO 2 flash operation:

1. Set flash power to MAX (or MAX +, if available)
2. For HSS set flash duration to 1/50th (any faster shutter speed ie 1/100th will be automatically captured) this ensures that the flash will be lit for the

entire duration of the shutter event.

3. Set colour temp (Kelvin) to midpoint (approx. 4100K – midpoint is indicated by a dot in lower right hand corner of the Kelvin display), or carefully match it to the ambient light colour in the background of the image.

Shooting in High Speed Sync

Anova PRO 2 is a High Speed Sync(HSS) capable flash. High speed sync allows you to utilize the flash of Anova PRO 2, and synchronize it with your camera's shutter release, at speeds faster than your cameras native internal sync speed (typically 1/160th or 1/250th). This enables you to freeze action, and shoot with wider apertures for controlled depth of field.

Anova PRO 2 will happily work with any camera and any trigger/receiver with a PC sync input, however to shoot in High Speed Sync a) your camera must itself be capable of HSS (many are not) , and b) you must use a HSS capable trigger and receiver (most trigger/receivers are not natively HSS compatible unless explicity stated).

*** PLEASE CHECK THAT YOUR CAMERA AND TRIGGER EQUIPMENT IS CAPABLE OF HIGH SPEED SYNC**.

Note: Anova PRO 2 will flash once for the duration set shutter interval when syncing in HSS, ensuring that the complete frame is illuminated , without banding or gradation. If Anova PRO 2 detects a flash re-trigger event during a set interval , it will automatically adjust the duration of the flash to a shorter interval , to avoid damage occurring to the LEDs.
Recommended triggers:

(Compatible with internal built in flash receiver)

- **Rotolight HSS Transmitter (Canon Nikon Sony Olympus Panasonic)**
- **Elinchrom HS Transmitter Plus** (Canon Nikon Sony Olympus Panasonic, download latest firmware from Elinchrom.com for Rotolight integration) (Other HSS transmitters which will require a receiver or transceiver connected to the Flash Sync Port on Anova PRO 2)
- **Godox X1T (use with the Godox X1R receiver)**
- **Pixel King Pro - Sony, Canon, Nikon**
- **Flashpoint R2**
- **Phottix ODIN II (HSS) – Canon, Nikon, Sony**
- **PocketWizard (HSS) : FlexTT5, and FlexTT6 support High Speed Sync (HSS) for Canon and FP Sync for Nikon.**
- **Cactus VI II (HSS) : Fuji, Canon, Nikon, Pentax, Olympus, Panasonic**

To exit flash mode

Click the left switch to return to MENU, alternatively you can return to the basic operation (BRI / COL) by pressing both control switches together.

SETTING Anova PRO 2 to use the built in Skyport HSS Receiver (2.4Ghz wireless flash triggering using the built-in Elinchrom Skyport HSS Receiver)

Note: Anova PRO 2's factory default settings are channel 1, group 1 (same as the Rotolight HSS transmitter by Elinchrom), with Skyport trigger turned ON , in speed mode (HSS) . Therefore, to use flash, you do NOT need to access the CNTL menu unless you wish to turn skyport off, or to change the group or channel.

If you do want to configure your transmitter and Anova to work together, in MENU mode , use the left knob to Scroll to 'CNTL' , Click the right switch to enter 'CNTL'
Firstly set the FREQ (Elinchrom & wDMX channel frequency), default is '1', you have the option of 20 channels.
Left click to exit FREQ, then rotate the left knob to scroll to 'SKYP' (SKYPORT). Click the right switch to enter. Use 'GRP" to set the SKYPORT GROUP (usually

'1') . Left click to exit GRP. Then select SKYP/'Mode'. (the options are OFF/ SPED/NORM) . Rotate the right knob to change from 'off' to 'SPED' (HSS 'Speed' mode SKYPORT) or if you are using an older (non HSS) Elinchrom transmitter then select 'Norm' , i.e. Normal mode, this activates the skyport wireless HSS trigger. (Note: Anova PRO 2 will also still flash in Skyport mode from a wired external source connected to the Flash Synch 3.5mm Jack port). Note: if using the transmitter to also control Elinchrom Skyport flash units you can right click on 'SKYP' option in Mode Sub menu to select NORM(normal) for use with Elinchrom units or SPED (Speed = HSS) for Rotolight only units.

Rotate the left knob to scroll to 'GRP' (SKYPORT Group). Click the right switch to enter 'GRP' settings.
Rotate the right knob to select your desired group (GP 1-4). Click the left knob to set and return.

Rotate the left knob to scroll to 'FREQ' (SKYPORT & wDMX Channel) click the right switch to enter 'FREQ' settings. Rotate the right knob to select your desired channel (Ch 1-20)Click the left knob to set and return.

Setting up the HSS transmitter

First turn on your Anova PRO 2, then turn after a few seconds, turn on your Rotolight or Elinchrom HS Skyport Plus HS Transmitter (the latter requires a free firmware update required from Elinchrom.com).
In the setup menu, scroll down to 'ELSP' and within that sub menu, rotate the rotary wheel to 'Speed' Mode, and press the centre button (inside the rotary wheel) to activate speed mode (The transmitter display should turn red).
Next, in the setup menu, scroll down to 'Sync Mode' and within that sub menu, rotate the rotary wheel to 'HS' (for High Speed) Mode, and press the centre button (inside the rotary wheel) to activate speed mode (HS will be displayed on the screen – note sync menu does not appear in Nikon transmitters and is not required to be activated for HSS).
The Rotolight HSS transmitter by Elinchrom will default to Group 1, channel 1, same as Anova PRO 2. When the transmitter is connected to Anova PRO 2, you will see it listed as a connected device on the LCD display, with an ID number.
You can check the transmitter is set to the same group as Anova PRO 2 by pressing the 'group' button (toggles through 'All, 1, 2, 3, 4').
Check the HS transmitter is set to the same 'frequency/channel' as Anova PRO 2 by pressing 'setup' / frequency (set Channel Number 1-20).
Put the Anova PRO 2 into flash mode (you will see duration stated ie 1/50th), Press the Elinchrom Logo test button on the transmitter, and on Anova PRO 2 will flash if correctly connected.
If nothing is received , check the receive channel and group are correctly set on both Anova PRO 2 and the HS Transmitter.
Once working, on Anova PRO 2 , Click the left button to exit, or both Left and right buttons together, to exit back to ('BRI/COL').
You have now configured your HS Transmitter and Anova PRO 2.

Special Note: Turn on the Anova PRO 2(s) first, followed by the Skyport HS Transmitter, then your camera. If you later add an additional Anova PRO 2 in your setup, or you turn the Anova PRO 2 off during shoot, then press the 'refresh' button to rescan for available lights.

Make sure the Skyport Transmitter is set to HS mode in settings. Select your desired exposure duration from the camera, and shoot in single or multiframe mode using your camera shutter release, the Anova PRO 2 will flash in sync with the camera at up to 1/8000th second exposure.

The Rotolight/Elinchrom HSS transmitter is currently available for Canon , Nikon , Sony, Olympus, and Panasonic Camera systems. In 2018 there will be a version for Fuji. (more info on **www.rotolight.com**)

WHEN YOU HAVE ANOVA PRO 2 SKYPORT CONFIGURED YOU CAN REMOTE CONTROL ANOVA PRO 2

PWR Button (control Brightness of ANOVA Pro 2)

On the Rotolight/Elinchrom Transmitter press the second 'soft key' ('MOD+' (click twice to see 'mod+') and use the wheel to control the Anova PRO 2 colour temperature.
On the Rotolight/Elinchrom Transmitter press the first 'soft key' ('PWR') and use the wheel to control Anova PRO 2 brightness on all lights connected on that channel and group.

To enter flash mode, on the Rotolight/Elinchrom Transmitter press the test key (Elinchrom Logo Key) , ('MENU' ...then 'FLSH' will be displayed) , Press the Test key again to enter Flash mode.

To test the flash, press the test key (Elinchrom Logo)
To change the flash power settings press the second 'soft key' (MOD) and flash power setting will be displayed on the Anova PRO 2. Rotate the rotary control to change the setting.
In Flash mode, press (PWR) and use the encoder to change the modelling light brightness.
In flash mode, press (MOD+) and use the encoder to change the flash and modelling light colour temperature (3150-6300K).
To exit flash mode, press (MOD) and rotate the encoder wheel to the left (anticlockwise), Anova PRO 2 will flash briefly and return to (BRI/COL) mode.

Encoder Wheel

Test Flash Key (Single Click=right click, Double click=left click from AP2)

NAVIGATING MENU MODE USING HS TRANSMITTER REMOTE CONTROL
When you are in (BRI/COL) mode press the 'test button' (Elinchrom Logo), ('MENU' then 'FLSH' is displayed). Use the rotary encoder to select the menu item you would like to control ('FLSH', 'X-FX', 'FADE', 'SFX', 'FDIM', 'CNTL', 'TECH', 'DEMO').
Press the test button (Elinchrom Logo) to enter the sub menu, e.g. 'SFX' then you can select menu items using rotary encoder, and press the test button once to select/trigger/pause etc.
Note: To exit and go back one step, press the test button twice
Note: To exit 'MENU' and go back to (BRI/COL), press the test button twice

If Anova PRO 2 is in MENU mode, you can use the wheel to scroll through the menu items, and use the Elinchrom Logo button to enter or trigger a menu item (this way you can select or remotely trigger fades or the CineSFX items).

Exposure Effects

Anova PRO 2 now includes a brand-new Exposure Effects (X-FX) feature set, delivering multi-flash 'intra-frame' imaging for photography that allows users to capture multiple 'stroboscopic' frames of movement within one exposure, or programmable delayed flash events. To enter X-FX , press the right switch.

('DLAY') Delay before the 'Reps or Gaps'

Press the right switch to enter 'DLAY' 0.00s is displayed. Use the right or left encoder to dial in a delay value (in seconds). This will introduce a delay in the flash event, after the shutter release or trigger is received. Left click to exit.

('REPS') Repetitions

Press the right switch to enter. 'REP x1' is displayed. Rotate the right or left encoder to set the number of flashes required (maximum 20). Left click to exit.

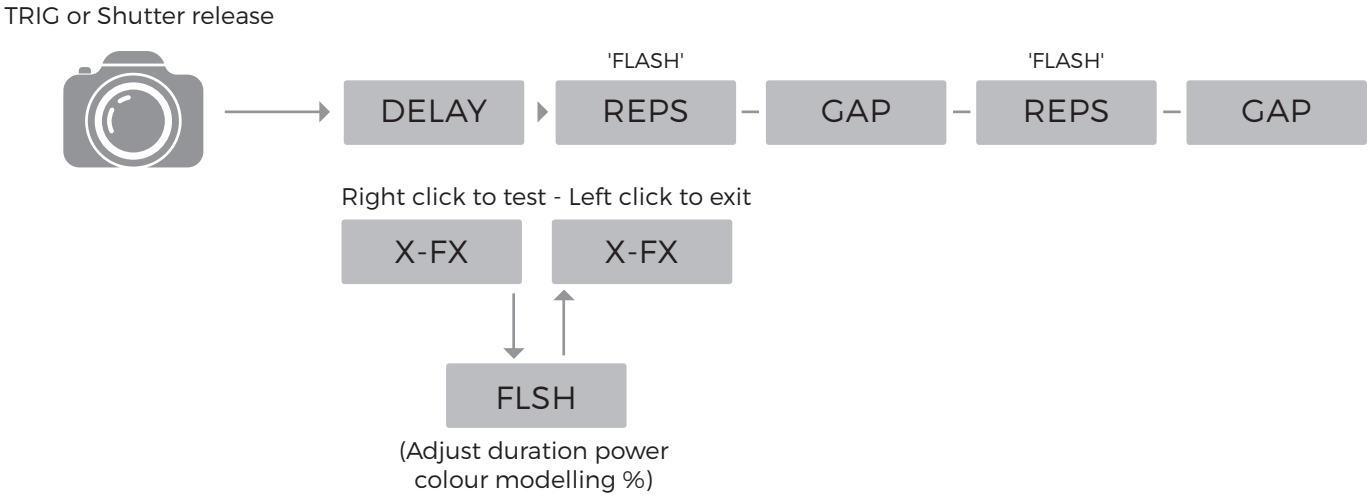
('GAPS') The Gaps between the Repetitions

Press the right switch to enter 'GAPS'. '0.05s' is displayed. Use either encoder to set the desired duration of the 'GAPS' between the repeated flashes ('REPS'). Left click to exit.

When you have set any desired DLAY, REPS or GAPS you can test X-FX by

pressing the right switch, Anova PRO 2 will display the 'FLSH'(Flash) settings , so you can adjust flash duration, flash output power, modelling light and colour temperature of the light

NB: X-FX are only active whilst you remain in the X-FX menu. You can test the settings in X-FX by clicking the right switch
To exit X-FX click the left switch.



'FADE' Designer Fade™

Programmable 'Fade Up / Fade Down' production fades for practical 'In-Camera' lighting fade effects.
Scroll to 'FADE'
Click the right switch to enter 'FADE' mode rotate the right knob to adjust the fade duration (It will display DN (=fade down) followed by a numeral value 'X's where X = seconds of fade duration)
The fade can be from 1 to 12 seconds long. Please note, the FADE will be a fade to zero from the current brightness level the Anova PRO 2 is set to (ie if brightness is currently 80%, then fade will be 80%-0% over custom time duration).

(Note: both the last used brightness setting and fade duration parameter are stored in non volatile memory)
Once you have selected the length of the fade, Click the right switch to perform the fade, or use an external trigger via the Trigger input port or SKYPORT.
You will notice the display now shows UP X s (i.e. it will now fade up to your previous brightness setting over 'X' seconds).

To fade up click the Right switch again (or external trigger)
If you only want Fade downs'use the left switch to click out of FADE and click back in – use the right switch to perform the Fade.

Click the left switch to return to MENU, alternatively you can return to the basic operation menu (BRI / COL) by pressing both control switches together.

'FDIM' True Aperture Dimming™

This feature is an exposure calculator. It shows the brightness setting as an accurately calculated aperture (F-Stop) for your subject at a given distance, using your camera ISO, and shutter. It also provides a nice way to accurately adjust your keylight to match your camera settings, rather than the other way round , which can be very useful.
Cycle the menu to 'F-DIM' then Click the right switch to enter 'F-DIM' mode. Rotating the left knob cycles through the available user parameters:-
'ISO' (your camera ISO setting), 'EXP'(your camera shutter speed) and FEET'(the

distance from the light to your subject in feet)
Rotating the right knob will adjust the value of the selected user parameter (ISO/EXP/FEET)
Clicking the right switch will enter the 'F-Stop Dimming Display' where the brightness is dynamically displayed as an aperture or 'F-Stop

Adjust the brightness with the right knob and the display will show the adjusted F-Stop aperture for your camera.

(Please note the 'True Aperture Dimming ™' algorithm calculates the F-Stop based on the Anova PRO 2 brightness setting, your camera's ISO and shutter speed, the distance to the subject AND compensates for the skin contrast of the subject)

To re-adjust the last selected parameter (usually FEET) click the right switch , make the adjustment, then click the right switch again to return to the 'F-Stop Dimming Display' , alternatively rotate the left knob to select a different parameter to edit, and then click the right switch to re-enter 'F-Stop Dimming Display'.

This enables you to effectively 'bookmark' the active user parameter that is dynamically changing during your shoot (i.e. distance to subject), and without needing to re-meter the shot, update the parameter and calculate the revised F-STOP, allowing you to work fast.

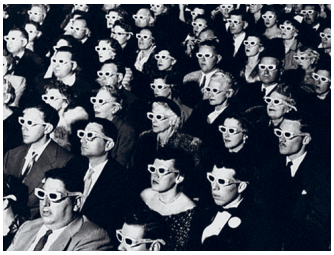
You can also decide to work in reverse, i.e. you creatively choose an aperture (i.e. F3.0) and match your light to your camera exposure settings, this way all the photos from your shoot will have the same grain structure, depth of field, etc. This is a novel and very useful way of working creatively, and can also save a lot of time, whilst delivering consistent results from a shoot.

Click the left switch to return to MENU, alternatively you can return to the basic operation (BRI/ COL) by pressing both control switches together.

‘SFX’ Cinematic Special Effects

In collaboration with Stefan Lange, DOP and VFX veteran, we have created an arsenal of Cinematographic Special FX (CineSFX™) , these production tools are designed to complement your feature/ music video/short film.

SFX brightness and colour temperature:
Please note, the current brightness level and colour temperature setting of Anova PRO 2 is used by SFX mode to represent the ‘peak output’ level of each effect, enabling accurate metering (ie if Anova PRO 2 is set to 75% brightness and 5600 Kelvin, then the lightning effect peak brightness level shall be 75% brightness at 5600 Kelvin).
Therefore, to ensure maximum SFX brightness, set Anova PRO 2 to 100% brightness and 4300 Kelvin for maximum brightness in SFX mode. To do this, you can return to the basic operation (BRI / COL) by pressing both control switches together. You can set the BRI/COL in most SFX using the left Rotary control and left Rotary pressed.



WARNING - HEALTH HAZARD – USE STROBE WITH CAUTION: CineSFX™ mode uses Strobe Lighting effects that may pose a risk to those at risk of photosensitive seizures/ epilepsy. Manufacturer accepts no liability or responsibility for misuse of this product. You should take all precautions to pre-warn and ensure the safety of those who may come into contact with the product. If you or any of your relatives have a history of seizures or epilepsy, consult a doctor before using. If you feel unwell from using these effects, immediately discontinue use and consult a doctor. If strobe lighting is to be used in a production, warnings should be posted at the front of house or entrance doors to the set/ theater as well as in a video or program, if distributed. Example: “WARNING: Strobe lights are used during this performance”.
This product is not suitable for use by children of any age and is designed for professional use only.

Rotolight have a policy of continuous product improvement and so some of the CineSFX may operate in a slightly different way than is described here, or may be forthcoming on a future firmware update, check www.rotolight.com for details or ask your dealer.
Click the right switch to enter ‘SFX’ Rotating the left knob cycles through the available ‘SFX’:-‘Strb’- ‘Ltng’- ‘Thrb’- ‘Cycl’- ‘Fire’ - ‘Plce’- ‘TV’- ‘Roto’- ‘Shot’- ‘NEON’, ‘Film‘ - ‘Weld’ - ‘PaPa’- ‘Chse’
You can activate your selected SFX function by clicking the right switch. Please note that the ‘Chse’ effect will only be available if CNTL/Mstr/wDMX (or DMX) is selected.
You can leave the selected function by clicking the left switch, alternatively you can return to the basic operation mode (BRI /COL) at any time by pressing both switches together at the same time.

‘STRB’ Strobe

The strobe effect produces a regular flashing light, you can control the speed Click the right switch to activate the strobe effect Rotate the right knob to adjust the strobe speed (It will display XX hz , where= ‘XX’ = number of strobe cycles per second) The strobe range is from 1hz up to 4hz. (NB: the last used strobe parameters are stored in non volatile memory). Rotate the left knob to adjust the ‘duty cycle’ (flash duration) to eliminate any issues with rolling shutter cameras. Click the left switch to exit the strobe menu and return to SFX menu. Press and rotate the left knob to adjust brightness, press and rotate the right knob to adjust colour.

‘LTNG’ Lightning

The lightning effect simulates real lightning, it is a random effect but you can control the speed at which the lightning bursts re-occur, ideally you would set the brightness (BRI) to 100% and the colour (COL) temperature to 6300k.
Click the right switch to activate the lightning effect Rotate the right knob to

adjust the duration between the bursts of lightning (it will display XX hz which is an indication of the effect frequency). The lighting range is from 1hz up to 50hz. Click the right switch to arm the effect and fade to black, 'Trig' will be displayed - re-click the right switch to trigger the effect, you can also trigger the effect from an external trigger source via the flash sync and trigger port. Rotate the left knob to adjust the 'rolling shutter compensation' (flash duration) to eliminate any issues with rolling shutter cameras. (NB: the last used lightning parameters are stored in non volatile memory). Press and rotate the left knob to adjust brightness, press and rotate the right knob to adjust colour.
Click the left control switch to exit the lightning effect and return to SFX menu.
(Note: the duration of the lightning flashes is 20ms which is the recommended duration for cinematography, although this value is adjustable so you can compensate for rolling shutter artefacts. The lightning strikes come in bursts of between 2 and 8 random length pulses.)

'THRB' Throb

Throb is a regular smoothly pulsing light, Click the right switch to activate the 'throb' effect, Rotate either the left or right knob to adjust the 'throb' effect frequency (it will display XX hz which is an indication of the effect frequency)
The Throb range is from 1hz up to 50hz. (NB: the throb parameters are stored in non volatile memory). Press and rotate the left knob to adjust brightness, Press and Rotate the right knob to adjust colour.
Click the left switch to exit the throb effect and return to SFX menu.

'CYCL' Colour Cycle

Cycle is a regular smoothly pulsing light which fades between the tungsten and blue LED's, Click the right switch to activate the 'Colour CYCLE' effect
rotate either the left or right knob to adjust the 'Cycle' effect frequency (It will display XX hz which is an indication of the effect frequency)
The cycle range is from 1hz up to 50hz. Press and rotate the left knob to adjust brightness, Press and rotate the right knob to adjust colour.
(NB: the cycle parameters are stored in non volatile memory). Click the left switch to exit the cycle effect and return to SFX menu.

'FIRE'

Fire is a complex emulation of a burning fire and it can be tuned to your requirements. Some VFX artists like to use multiple lights with slightly different settings/gels to achieve a fire with 'dancing shadows'.

Note: Before activating the fire effect you can set a brightness level and then meter 'Anova PRO's output which will be your peak exposure during the fire effect. For best results preset the COL (colour temperature) to 3150kelvin.

Click the right switch to activate the 'fire' effect, rotate either the right knob to adjust the 'fire' flicker frequency (It will display XX hz which is an indication of the effect frequency – around 45hz is nice for a 'campfire').

Rotate either the left knob to adjust the 'fire' effect residual glow depth threshold (about 35% is nice for a 'campfire').
(It will display XX % which is an indication of the effect depth) Press and rotate the left knob to adjust brightness, Press and rotate the right knob to adjust colour.
Inside the fire effect there is a switchable parameter called 'colour swing BLUE' which emulates the colour transition of flames going up the chimney (i.e. from yellow to blue) to activate this parameter click the right button.

To deactivate 'colour swing BLUE' click the right knob again and 'MONO' (monochrome) will (NB: the fire parameters are stored in non volatile memory)
The fire effect can be enhanced with a warm colour filter . An amber, half CT Straw or half CTO.

© Martin Scorsese by Mark Mann lighting by Rotolight Anova

‘PLCE’ Police

This effect is an emulation of an emergency services light – it works best by adding the 712 Bedford Blue Filter Gel (included within the optional Add on Colour FX Pack) or the 182 Light Red Filter.

Click the right switch to activate the police effect.
Rotate the right knob to adjust the police beacon speed
(It will display XX hz , which will give you an indication of the effect speed).
Rotate the left knob to select ‘Dbl’ , ‘Trip’ or ‘Quad’
(NB: the police parameters are stored in non volatile memory). Press and rotate the left knob to adjust brightness, press and rotate the right knob to adjust colour.
Click the left switch to exit the Police effect and return to SFX menu.

‘TV’ Television

This effect is an emulation of a TV flicker – it works best by setting the colour temperature to 6000K or adding the 116 Medium blue/green filter from the Add on Colour FX Pack.

Click the right switch to activate the TV effect, rotate either the left or right knob to adjust the TV effect speed (it will display XX hz , which will give you an indication of the effect speed).

Click the right switch to pause the effect / fade to black-‘Trig’ will be displayed -re-Click the right switch again to Trigger the effect. You can also trigger this effect from a trigger connected to the flash sync port (Note: the TV parameters are stored in non volatile memory). Press and Rotate the left knob to adjust brightness, Press and Rotate the right knob to adjust colour. Click the left switch to exit the TV effect and return to SFX Menu.

'ROTO' Rotary special effects

The submenu set of ROTO SFX are designed to offer VFX Designers something uniquely
different even experimental. Because ANOVA PRO 2 can address the LEDs boards in Pairs, we have made a set of SFX tools that offer some unique spinning lighting effects for VFX designers, of particular note is the spooky shadowing that is created by many of the spinning ROTO FX, which lend themselves well for Drama/Horror productions.

Click the right switch to enter the ROTO SFX, click the Left switch to exit, use the left rotary encoder to select the desired ROTO effect.

The ROTO spinning FX comprise the following:-

Seg1: creates a single spinning LED segment. The right rotary controller adjusts the speed of the effect. The right switch changes spin direction.

Seg2: creates a double spinning LED segment. The right rotary controller adjusts the speed of the effect. The right switch changes spin direction.

WIPE: A single segment Rotates around the Anova face. It either fills or darkens each LED segment sequentially. The right rotary controller adjusts the effect speed. The right switch (or trigger input) reverses the direction.
You can also use an external trigger via the sync trigger port to change the spin direction of any of the spin effects.
Use the left switch to exit the ROTO effects, or use both left and right switches together to return to the normal BRI/COL operation.

‘SHOT’ Muzzle Flash

This effect simulates the light produced when a gun is fired (commonly known as MuzzleFlash).
Enter the effect by pressing the right switch. Trigger the effect by pressing the right switch , or trigger the effect externally via the trigger port or Skyport. Control the delay time of the gunshot using the right rotary control. Use the left rotary control to control the ‘colour swing’ of the fire coming from the muzzle, I.e. rotate right (clockwise) to set a blue to orange value, or rotate left (anti-clockwise) to select an orange to blue value.
Press and rotate the left knob to adjust brightness, Press and rotate the right knob to adjust colour.
To exit the effect , press the left button, or to exit back to basic BRI/COL operation press both switches.

'NEON’ Broken Neon Light

This effect is used to simulate a faulty neon fixture. To enter the effect click the right switch. Use the right switch to start/stop the effect, alternatively use the sync/trigger input port or skyport to externally start/stop the effect.
The right or left rotary encoder controls the flicker speed of this effect. Press and Rotate the left knob to adjust brightness, Press and rotate the right knob to adjust colour.

To exit the effect press the left switch. To exit to BRI/COL operation press both right and left switches together.

‘FILM’ Old Cinema Projector

The ‘film’ SFX effect is designed to simulate the light coming from a celluloid film projector in a movie theatre. To enter the effect click the right switch. You can start stop the effect using the right switch or an external trigger from the flash sync and trigger port. The right rotary control changes the speed of the movement on the screen. The left rotary control changes the the speed of the flicker frames emulating the sprocket fed film.
To exit this effect press the left switch, to exit back to basic (BRI/COL) operation press both left and right switches together.

‘WELD’ Arc Welding Light

This effect simulates the light from an electric arc welding torch.
To enter the effect press the right switch. The right rotary control varies the speed of the effect. The right switch starts / stops the effect, or you can also start/stop the effect via the external trigger port.
A key characteristic of the arc welding process is the electric blue arc flame and the orange sparks, press and rotate the left knob to adjust brightness, press and rotate the right knob to adjust colour.
To exit the effect press the left switch, or to exit back to basic BRI/COL operation press both switches together.

‘PAPA’ Paparazzi

This effect simulates a flash mob of paparazzi.
Enter the effect by pressing the right switch. Trigger the effect by pressing the right switch, or trigger the effect externally via the flash/trigger port or Skyport.
Rotate the right knob to control the speed of the effect.
Click and turn the right knob to change colour and click and turn the left knob to change brightness.

'CHSE' Chase

This effect uses a line of up to 48 Anovas to simulate passing streetlights.
This effect is only available if the master Anova PRO 2 is set to CNTL/Mstr/wDMX (or BOTH). To set up the Chse SFX please follow these instructions:

Position the required number of lights in a row behind a long sheet of diffuser near the window of your 'train carriage' or alongside your 'car' on set.

Firstly we are going to use the powerful CNTL/Base/Auto command to set up the chain of lights:-

On the Master:

- Set CNTL/Base/FXRX/2Chn
- Set CNTL/Mode/wDMX and CNTL/Mstr to off
- Set CNTL/Base/Auto/to 'SET' (WARNING: this is a 'nuclear option' and will change all your lights!) – right click, and all the configuration settings from the master Anova will be copied to your other Anova lights.
- Set CNTL/Base/Auto/to 'NEXT' (WARNING: this is also a 'nuclear option' and will change all your lights!) on the slaves you will now see '= +'. Hit the '+' on each adjacent light in your chain - sequentially. They will now display their starting DMX base address (i.e.3-4, 5-6, 7-8, 9-10) The master should be 1-2, the slaves 3-4, 5-6 etc (all apart from the master will appear black until we enable the chase).

Now on the master

- Set CNTL/Mode/Locl and Mstr/wDMX (or 'Both') - this will put you in local control of the master light and the broadcast SFX
- Now go to the SFX menu on the master and you will see the 'Chse' option at the end of the list (this only appears when you're in Mstr/wDMX or 'Both')
- Click on chse and all the lights in the chain should illuminate:
- to abort the DMX status scroll go to 'TECH/SCRL/Off '
- Turn the right knob to adjust the pulse shape (tip: set 50Hz initially so you can see what's going on).
- Turn the left knob to adjust the gap between pulses (we recommend you turn it down to 1.5 secs initially).
- push turn while displaying the gap to adjust the chase speed (75-90% gives a nice effect).
- Now adjust the right knob pulse shape to blur the pulse across multiple lights.
- The right rotary control varies the speed of the effect. The right switch starts / stops the effect, or you can also start/stop the effect via the external flash/ trigger port.
- To exit the effect press the left switch, or to exit back to basic BRI/COL operation press both switches together.

Knob	Left	Right
Display	Chase speed 0-100	Pulse shape 1-50Hz
Push-Turn	Pulse Gap 0.1s-9.0s	Chase floor 0-10%

Anova PRO 2 DMX Mapping

DMX	KELVIN	DMX	KELVIN	DMX	KELVIN	DMX	KELVIN	DMX	KELVIN	DMX	KELVIN	DMX	KELVIN
0	3150	37	3520	74	3890	111	4260	148	4630	185	5000	222	5640
1	3160	38	3530	75	3900	112	4270	149	4640	186	5010	223	5660
2	3170	39	3540	76	3910	113	4280	150	4650	187	5020	224	5680
3	3180	40	3550	77	3920	114	4290	151	4660	188	5030	225	5700
4	3190	41	3560	78	3930	115	4300	152	4670	189	5040	226	5720
5	3200	42	3570	79	3940	116	4310	153	4680	190	5050	227	5740
6	3210	43	3580	80	3950	117	4320	154	4690	191	5060	228	5760
7	3220	44	3590	81	3960	118	4330	155	4700	192	5070	229	5780
8	3230	45	3600	82	3970	119	4340	156	4710	193	5080	230	5800
9	3240	46	3610	83	3980	120	4350	157	4720	194	5090	231	5820
10	3250	47	3620	84	3990	121	4360	158	4730	195	5100	232	5840
11	3260	48	3630	85	4000	122	4370	159	4740	196	5120	233	5860
12	3270	49	3640	86	4010	123	4380	160	4750	197	5140	234	5880
13	3280	50	3650	87	4020	124	4390	161	4760	198	5160	235	5900
14	3290	51	3660	88	4030	125	4400	162	4770	199	5180	236	5920
15	3300	52	3670	89	4040	126	4410	163	4780	200	5200	237	5940
16	3310	53	3680	90	4050	127	4420	164	4790	201	5220	238	5960
17	3320	54	3690	91	4060	128	4430	165	4800	202	5240	239	5980
18	3330	55	3700	92	4070	129	4440	166	4810	203	5260	240	6000
19	3340	56	3710	93	4080	130	4450	167	4820	204	5280	241	6020
20	3350	57	3720	94	4090	131	4460	168	4830	205	5300	242	6040
21	3360	58	3730	95	4100	132	4470	169	4840	206	5320	243	6060
22	3370	59	3740	96	4110	133	4480	170	4850	207	5340	244	6080
23	3380	60	3750	97	4120	134	4490	171	4860	208	5360	245	6100
24	3390	61	3760	98	4130	135	4500	172	4870	209	5380	246	6120
25	3400	62	3770	99	4140	136	4510	173	4880	210	5400	247	6140
26	3410	63	3780	100	4150	137	4520	174	4890	211	5420	248	6160
27	3420	64	3790	101	4160	138	4530	175	4900	212	5440	249	6180
28	3430	65	3800	102	4170	139	4540	176	4910	213	5460	250	6200
29	3440	66	3810	103	4180	140	4550	177	4920	214	5480	251	6220
30	3450	67	3820	104	4190	141	4560	178	4930	215	5500	252	6240
31	3460	68	3830	105	4200	142	4570	179	4940	216	5520	253	6260
32	3470	69	3840	106	4210	143	4580	180	4950	217	5540	254	6280
33	3480	70	3850	107	4220	144	4590	181	4960	218	5560	255	6300
34	3490	71	3860	108	4230	145	4600	182	4970	219	5580		
35	3500	72	3870	109	4240	146	4610	183	4980	220	5600		
36	3510	73	3880	110	4250	147	4620	184	4990	221	5620		

DMX CHANNEL	VALUE	FUNCTION
1 (Base)	0-255 0 1 ...127... 255	**Brightness** 0% 1% 50% 100%
2	0-255 0 ...135... 255	**Colour Temperature** 3150K 4500K 6300K
3	0 - 255 0 - 7 8 - 15 16 - 23 24 - 31 32 - 39 40 - 47 48 - 55 56 – 63 64 - 71 72 - 79 80 - 87 88 - 95 96 - 103 104 - 111 112 - 119 120 – 127 128 - 255	**SFX (when FxRx = 8chn)** Normal brightness (SFX off) Strobe Lightning storm Throbing Colour cycle Fire Police lights TV simulator Shotgun Neon light Film simulation Welding Paparazzi Roto light Normal brightness (Spare) Fade mode Reserved for future use
4	0-255	**SFX frequency or speed** 0 minimum to 255 maximum
5	0 – 255 0 - 255 0 - 255 0 - 255 <86 <172 <255 0 - 42 43 – 84 85 – 127 128 – 170 171 – 213 214 – 255 Change to 0 or 255 Change to 0 or 255	SFX duty Function depends on SFX Mode. Scaled to use full 0 - 255 value range. Strobe duty from 10% to 90% Lightning rolling shutter comp 10% - 90% Fire floor 0% (max depth) - 75% (min) Police number of flashes = 2, 3, 4 Roto light mode: - 1 segment clockwise - 2 segments clockwise - Wipe clockwise - 1 segment anticlockwise - 2 segments anticlockwise - Wipe anticlockwise Shotgun is triggered when duty data value changes to zero or 255 Fade is triggered when the duty data value changes to zero or 255
6-8	0-255	**Reserved for future use**

Elisabeth Moss by Mark Mann lighting by Rotolight Anova

Emma Stone by Mark Mann lighting by Rotolight Anova

‘CNTL’ - Control Menu

This menu allows you to set what is controlling Anova PRO 2 (MODE), or what Anova PRO2 is controlling as a Master (Mstr), the DMX Base address (BASE/ Addr) and number of channels (FxRx), Auto setup any desired slaves (AUTO), wDMX and Skport Frequency (FREQ), and Skyport options (SKYP).

'BASE' DMX Channel & Layout plus AutoSET Menu

BASE – Use BASE (/ADDR) to select the first channel for DMX.
Anova can receive in 2 channel mode (BRI/COL) or 8 channel mode (this is in FxRx) Set Base channel from 1 to 503.

'ADDR' Primary DMX Channel Address

Use BASE /Addr to select the starting DMX channel address of the Anova PRO 2(e.g. ‘1’).

'FXRX' DMX Channel Layout

Choose 2 channel , or 8 channel DMX operation.
This allows Anova PRO 2 to send or receive 2 channels of DMX data (BRI/COL), or 8 channels of DMX data (BRI/COL/SFX SELECT/SFX Depth/SFX Speed, plus 3 spare DMX channels - reserved for RGB)

'AUTO' AutoSETUP

Use ‘SET’ to send the current Anova PRO 2’s configuration (DMX Address / MODE / Mstr / DISP / Scroll and Skyport and frequency) to any available slave Anova PRO 2’s that are not ‘Locked’. Be very careful using this , as it is a ‘Nuclear Option’ and will erase the configuration on all of your slave lights.
The settings copied include the DMX Address, CTRL/MODE & Mstr settings, DISP, Scroll, Skyport and Frequency settings.
Use ‘NEXT’ to make the slaves display ’= +’ . you can set the base channel for each slave incrementally with just a single click on ‘+’ (i.e. 3-4, 5-6, 7-8, 9-10), so it is really quick to set up a string of sequentially DMX Addressed slaves).
Alternatively, hit ‘=’ to make the selected light’s address the same as the previous light’s address. Be careful using this command, as it is also a ‘Nuclear Option’ and will overwrite the DMX address on your slave lights.

Use ‘LOCK’ to isolate and protect a specific light from changes bring made by a master running AUTO.

Use ‘DISP’ to control the displays on all connected DMX slave lights. Options are High/Low/Off

'MODE' (What Controls Anova)

Select which mode you want to use to control Anova PRO 2, options are:-
’Locl’ (the local knobs, trigger input and/or SKYPORT)
’DMX’ where this Anova PRO 2 is controlled by cabled DMX via the DMX port (i.e. from a DMX Desk)
’wDMX’ where this Anova PRO 2 is wirelessly controlled by Rotolight wDMX(i.e. from another Anova).

‘MSTR’ (What Anova Controls)

Select what protocol Anova PRO 2 uses to control other lights, options are as follows:-
’Off’ (Anova PRO 2 is not acting as a master)
’DMX’ where this Anova PRO 2 is sending DMX control data by cabled DMX via the DMX port

'wDMX' where this Anova PRO 2 is wirelessly controlling other Anova's using Rotolight wDMX
'MIX' where this Anova PRO 2 receives channels 1-24 of Cabled DMX from a desk, generates SFX data on 2 or 8 DMX channels, and combines this with the DMX Data from the desk. The combined DMX data is then transmitted wirelessly controlling other Anova's using Rotolight wDMX. Use '`MIX' mode to synchronise SFX to all downstream lights in ultra high resolution (FX Slave mode)
'BOTH' where this Anova PRO 2 sends local SFX data via both DMX and wDMX , by cabled DMX via the DMX port, and Rotolight wDMX wirelessly.

Note: You can simultaneously select options from both MODE and Mstr menus, with certain exceptions

You can't select mode: DMX and Mstr: DMX (cable to Cable DMX)
You can't select mode: wDMX and Mstr: wDMX (wireless to wireless wDMX)
You can't select mode: DMX and Mstr: BOTH (cable to Cable DMX, and wDMX)
You can't select either mode: wDMX OR Mstr: wDMX and simultaneously use Skyport

'FREQ' (wDMX and SKYPORT Frequency Channel)

Select the channel for Skyport, and the channel for Rotolight wDMX Operation.

'SKYP' (SKYPORT Control Options)

Select the Skyport group ('GRP':1-4), and the Skyport mode (off / SPEED / NORMAL)
NB : use SPEED ('SPED') for HSS flash sync operation.


© Penn & Teller by Mark Mann lighting by Rotolight Anova

‘TECH’ - Technical Utilities

This set of utility functions are designed to enhance Anova’s operation. Via this submenu you can monitor battery voltage , set up a custom calibrated colour, monitor the operating temperature, or check the firmware version, check the serial number, adjust the display settings or adjust the scrolling behaviour.

‘VOLT’ - Voltage

VOLT mode will scroll display the voltage from the selected power source. (e.g ‘9.4V BATTERY’ or ’15.2V DC IN’). Please note Anova PRO 2 will automatically give you a warning if the voltage drops too low which indicates a battery change is needed (e.g. ‘Low Battery’) . Anova PRO 2 will also put a blinking dot on the bottom right of the current display to indicate Low Battery Voltage whilst reducing the output by progressive steps of 10% until voltage stabilises to eliminate flicker. If you click and hold the right knob , Anova will show you the average voltage during the last three flashes (useful if you are not sure if your DC source or battery are working properly)

Anova PRO 2 will operate from 7.4V DC up to 18V DC and draws up to 72 watts at full power. Only connect external power sources with the correct polarity and voltage to avoid serious damage to Anova PRO.
(In ‘VOLT’mode, to check your battery performance in action, you can click the right switch and then rotate the left knob to observe the actual battery voltage during the range of dimming)

Click the left switch to return to MENU, alternatively you can return to the basic operation (BRI/ COL) by pressing both control switches together.

‘CAL’ - Calibrated Custom Colour Mode

This mode allows you set a special colour setting that is outside of Anova’s normal COL range. The left knob controls the yellow tungsten LED channel, and the right knob controls the Daylight LED Channel.
Click the right switch to enter ‘CAL’ mode. The two rotary knobs individually control the Blue channel LEDs (‘b’ XX), or the yellow channel LEDs (‘y’ XX).
You can now set very specific colours by balancing the two colour channels, within an expanded range of colour from 2800 kelvin up to 7000 kelvin. This custom colour value is held as an operating preset whilst you operate the ANOVA PRO 2, but will be reset if you power the unit down.
It is very useful to have an accurate colorimeter (such as a Sekonic C-700) to create these custom colours.
Click the left switch to return to MENU, alternatively you can return to the basic operation (BRI / COL) by pressing both control switches together.

‘TEMP’ - Temperature

Click the left switch to display the internal operating Temperature of ANOVA PRO 2. Note: if Anova PRO 2 detects the battery temperature rising to 58 degrees or above, it will display ‘too hot’ (touch any knob to clear message) and automatically cut the output down to 25% to prevent overheating.
(Please use only quality battery systems with Anova PRO 2, such as the Rotolight LionHeart 95mWh V-Lock, which will drive the light at full continuous power for over 2 hours).
Click the left switch to return to MENU, alternatively you can return to the basic operation (BRI/ COL) by pressing both control switches together.

'SRNo' Serial Number

Use the right switch to active a scrolling display of the serial number. Left switch to exit.

'VERS' - Firmware Version

Click the left switch to display the firmware version installed in your Anova PRO 2.
(Note: The firmware can be updated if required by your Rotolight Distributor via the update port in the battery compartment)
Click the left switch to return to MENU, alternatively you can return to the basic operation (BRI/ COL) by pressing both control switches together.

'DISP' Display Brightness Control

Allows the display to be set to low brightness or 'off' to reduce power consumption/increase battery life or for discrete usage on set. Click the left switch to enter 'DISP'.
Rotate either the left or right knob to select the display mode:- 'High' – the display will be at full brightness 'Low' – the display will be dim, reduced power consumption.
'Off' – The display will automatically switch off after 5 seconds unless a control is operated for maximum power saving or discretion on set.
Click the left switch to return to MENU, alternatively you can return to the basic operation (BRI/ COL) by pressing both control switches together.

'SCRL' Scrolling Text Control

Allows the control status scrolling to be set to 'on' or 'off'.
When 'on' Anova will continuously display the status of the control mode, DMX channels, master and reception/transmission.
When set to 'off', Anova will only display this information once when you make a change to the configuration.

'DEMO' CineSFX Demonstration Mode

Use this utility to let Anova PRO 2 automatically demonstrate a selection of its unique CineSFX™ capabilities, (mainly useful for retail stores).
Set a desired brightness and base colour temperature using 'BRI / COL'.
Enter MENU then navigate to 'DEMO' by rotating the left knob.
Select 'DEMO' by clicking the right knob.
Anova PRO 2 will now demonstrate a range of effects from its library, whilst simultaneously explaining what is being demoed on the red display.
Click the left switch to return to MENU, alternatively you can return to the basic operation (BRI / COL) by pressing both control switches together.

'FINE' - Fine Dimming Mode

Fine dimmimg mode enhances the low light level operation of the Anova PRO 2 (in normal operation below 7% brightness). It enables the Anova PRO 2 to offer smooth dimming down to zero , with accurate colour rendition , and enhances Basic (BRI/COL) operation , as well as FADE, THROB and CHASE. If you are shooting with a high frame rate camera, FINE mode can sometimes cause flickering at very low light levels. Default setting is ON, but for High frame rate operation you can turn this parameter to OFF.

8 Filter Information

Anova PRO's filters have a diameter of 304mm and a 40.5 mm hole in the centre, so it is easy to cut your own. You may combine multiple filters should you so wish (for example diffuser + colour FX).

A filter holder frame is included with Anova PRO 2.

Anova PRO 2 ships with a standard filter pack consisting of :-

216 Full diffuser
250 Half diffuser
184 'Cosmetic Peach' (Cosmetic diffuser for softer skin tones)
279 1/8th Magenta (or minus green)

There is an optional add on 'colour filter pack' which is highly recommended for use in conjunction with CineSFX™ mode, consisting of 10 colour FX filters, the first five (255, 791, 103, 162, 202) have been recommended by Visual FX Veteran and DOP Stefan Lange:-

255 'Hollywood Frost' (Soft gentle Diffuser with minimal light loss)
791 'Moroccan Frost' (warm Cosmetic Diffuser for darker skin tones)
103 Straw (Light sunshine FX, or subtle Fill/Hair Light FX)
162 'Bastard Amber' (warm very popular amber filter e.g. sunshine)
202 '1/2 CT Blue (great for Lightning or moonlight FX)

The optional 'Colour Filter Pack' also includes the following five popular colour FX filters :-

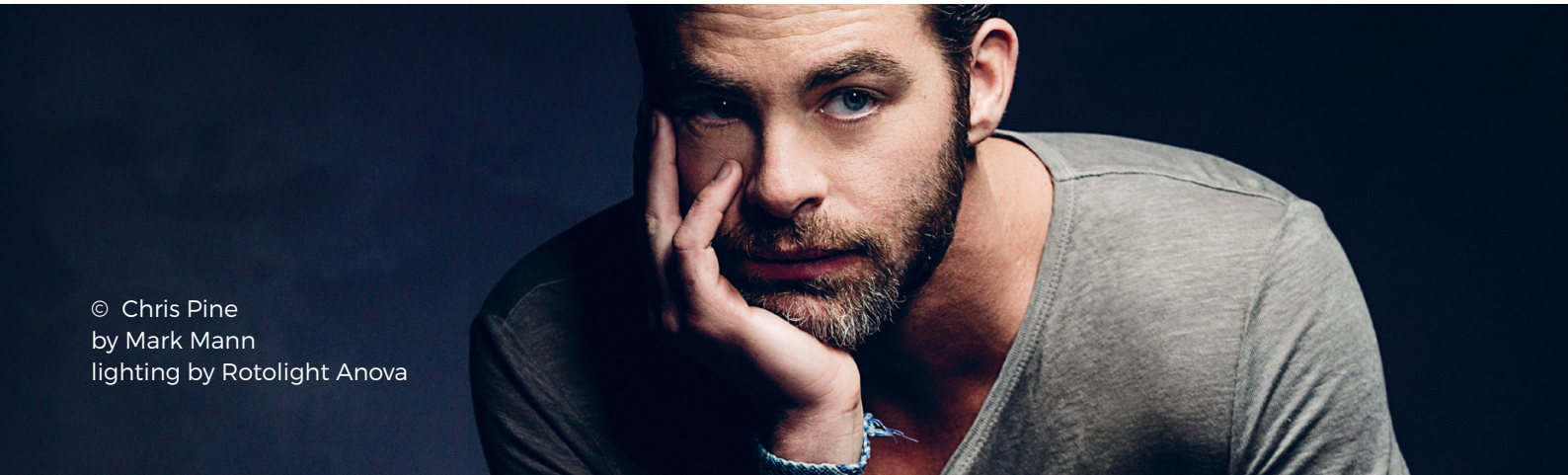
219 'Fluorescent Green' (Great for simulating Fluorescent, or a TV glow)
712 'Bedford Blue' (Excellent blonde hair light, or "Police" light SFX)
128 'Bright Pink' (Excellent as a hair light for Blonde/ Brunette)
182 'Light Red' (Excellent as a hair light for Brunette)
205 'LED ½ CTO' Great for enhancing 'Fire' SFX. Converts daylight (6500K) to Daylight (3800K) Mired shift: +109 (Recommended for use with 'Fire' CineSFX)

Mounting

Anova PRO 2 has a TVMP bracket (Television Motion Picture) on its yoke which is compatible with 'baby' 5/8ths and junior studs found on common lighting stands and C-Stands. When mounting Anova on to a gantry or lighting trusses please use a safety cord to prevent accidental injury from lighting fixtures falling. Anova PRO 2 can be mounted directly onto standard tripods or lighting stands.

Batteries

Anova PRO 2 will operate from a DC voltage of 7.4 volts up to 18 volts. Best performance is with Rotolight Lithium Ion V-Lock Batteries.
Rotolight Lithium ion 95mAh V-Lock Batteries **(available from www.rotolight.com)**



© Chris Pine
by Mark Mann
lighting by Rotolight Anova

Chiwetel Ejiofor photographed by Mark Mann for Sundance film festival

Celebro Studios London - Martin Stansford, lighting by Rotolight Anova


© Mads Mikelsen by Mark Mann lighting by Rotolight Anova

9 Component Weights & Dimensions

CRI (Colour Rendering Index)	CRI=> 96
Beam Angle	Flood -110 degrees or 50 degrees
Variable Colour Temperature Range	3150K to 6300K
Lighting System	Bi colour LED
Equivalent Output	4100 Watt tungsten bulb equivalent
Power Consumption	72 Watts at full power
Operating Temperature	-15degrees to +40degrees Celsius (do not store in cold humid environments (ice rinks, polar ice caps, etc)
PSU Operating range	100V AC to 250V AC output 15V DC at 90W
Dimensions	W 340mm x H 380mm x D 55mm (w/ barn doors fitted)

Component Weights

Anova PRO 2	2590g (2.59kg)
Yoke	440g (0.44kg)
One piece yoke with knobs	610g (0.6kg)
Anova with yoke, and knobs	3202g (3.2kg)
Flight case	6100g (6.1kg)
Case filled with Anova PRO 2, yoke, PSU and AC cord	8530g (8.53kg)
Filter sleeve set	90g (0.9kg)
Power supply and AC cord	500g (0.5kg)
Barn doors and fixing knobs	1500g (1.5kg)


© Margot Robbie by Mark Mann lighting by Rotolight Anova

10 Technical Specifications:

	ROTOLIGHT ANOVA PRO 2 BI-COLOUR 'STANDARD'	ROTOLIGHT ANOVA PRO 2 BI-COLOUR 'WIDE	ROTOLIGHT ANOVA PRO 2 5600k 'FIXED'
MODEL SKU	RL-AP2-BI-S	RL-AP2-BI-W	RL-AP2-BI-5600
BEAM ANGLE	'Standard 50 degree'	'Ultrawide 110 degree'	'Standard 50 degree'
COLOUR TEMPERATURE RANGE	Electronically adjustable from 3150-6300K	Electronically adjustable from 3150-6300K	Fixed Colour at 5600K
TLCI Television Lighting Consistency	97	97	94
OVERALL CRI (Ra)	CRI=>96 (skintone R15 CRI=99)	CRI=>96 (skintone R15 CRI=99)	CRI=>91 (skintone R15 CRI=95)
GUIDE NUMBER	GN 36 @ ISO 100 @ 9ft	GN 27 @ ISO 100 @ 15ft	GN 37 @ ISO 100 @ 9ft
LUX AT 3 FT ** (0.9m) FOOT CANDLES (fc) LUMEN f-STOP at ISO 200/400/800	10,700 Lux (994 fc) 5895 Lumens f11 / f15 / f21	5110 Lux (460 fc) 11448 Lumens f7 / f10 / f15	10900 Lux (1013 fc) 5895 Lumens f11 / f15 / f21
LUX AT 6 FT ** (1.8m) FOOT CANDLES (fc) LUMEN f-STOP at ISO 200/400/800	2710 Lux (252 fc) 5895 Lumens f6 / f8 / f11	1220 Lux (113 fc) 10935 Lumens f4 / f5.6 / f8	2900 Lux (270 fc) 5895 Lumens f6 / f8 / f11
LUX AT 9 FT ** (2.7m) FOOT CANDLES (fc) LUMEN f-STOP at ISO 200/400/800	1260 Lux (117 fc) 5895 Lumens f4 / f5.6 / f8	550 Lux (51 fc) 10967 Lumens f2.4 / f3.6 / f4.8	1330 Lux (124 fc) 5895 Lumens f4 / f5.6 / f8
POWER CONSUMPTION @100% OUTPUT	**72 Watts at @100% OUTPUT**	**72 Watts at @100% OUTPUT**	**72 Watts at @100% OUTPUT**
CONTROL	Local, DMX, wDMX, SKYPORT Flash Sync / Trigger input		
WEIGHT	2.47kg (body angle), 3.34kg with yoke		
DIMENSIONS	440mm (W) x 493mm (H) x 107mm (D)		
MOUNTING	Via standard TVMP bracket on yoke or M8 via utility block		
INCLUDED FILTERS	216 Full Diffuser, 250 Half Diffuser, 184 Cosmetic Peach, 279 - 1/8 Magenta		

** Based on calculation by 'The Lumen Coalition' of leading lighting manufacturers and Government bodies, where the agreed tungsten standard is 1 watt produces 16 Lumens in 360 degree beam angle. ** Measured at peak output 4100K Bi-colour or 5600K fixed colour, brightness will vary with colour temperature and accurate to +/- 10%*

11 Accessories:

ROTOLIGHT ANOVA SOFTBOX KIT

ANOVA PRO MASTERS KIT

ANOVA PRO BARN DOORS

ROTOLIGHT 95Wh V-MOUNT

4 CHANNEL V-LOCK BATTERY CHARGER

ANOVA PRO FLIGHTCASE

ANOVA DOUBLE YOKE

DUAL CHANNEL V-LOCK CHARGER

HONEYCOMB LOUVER

ADD ON COLOUR FX FILTER PACK

OPTICAL LIGHT SHAPING DIFFUSER

ANOVA PRO TRAVEL KIT

Jake Gyllenhaal photographed by Mark Mann for Sundance Film Festival

EA Sports shoot photographed by Rod Aaron Gammons

Anova PRO 2 Bi50 F-Stop Table in flash Mode

Exposure Time							1/60TH								
Distance (ft) Lux Lumens Footcandles CCT	3ft (0.9144m) 10700 5267 994 4233K			6ft (1.829m) 2710 5337 251.7			9ft (2.743m) 1260 5581 117 4211			12ft (3.658) 734 5782 68.1			15ft (4.572m) 483 5944 44.8 4200		
ISO	CN	FL	GN	CN	FL	GN	CN	FL	GN	CN	FL	GN	CN	FL	GN
100	7	11	33	4	6	36	3	4	36	2	2.8	33	2	2.4	36
200	10	15	45	5.6	8	48	4	5.6	50	3	4	48	2.8	3.5	52
400	14	21	63	8	11	66	5.6	8	72	4	5.6	67	3.3	4.5	67
800	20	29	87	11	15	90	7	10	90	5.6	8	96	4.5	7	105
1600	28	41	123	15	21	126	10	15	135	8	11	132	6	9	135
2500	36	52	156	19	27	162	13	19	171	10	15	180	8	11	165
CN = Continuous FL= Flash GN= Guide Number															

12 Troubleshooting

I have attached a battery but the unit does not power up ?
Check that the power switch is set to 'BATT' and not 'OFF' or 'DC IN'.

I have attached the AC to DC Adapter but the unit does not power up ?
Check that the power switch is set to 'DC IN' and not 'OFF' or 'BATT'.

I want to use an Anton Bauer battery with my Anova PRO 2, how does it fit ?
You need to get an Anton Bauer QR-A200 adapter plate, available from your Anton Bauer dealer or the Rotolight online store.

My Anova PRO 2 has powered up but when I try to adjust the brightness or colour using the encoder knob, nothing changes?
The CNTL (control) needs to be set to Mode:locl (local), not DMX, or wDMX.

I used a standard photographic colorimeter to check the colour of light on my Anova and it did not seem to give me a sensible reading?
Most colorimeters are not designed to accurately measure the light colour from LED's. The Anovas are all calibrated using a Sekonic C-7000 colorimeter which is specially designed to accurately measure LED light sources.

I attached an Anova DMX slave but it does not respond.
Check that your master Anova is in CNTL/MSTR/DMX and your slave is set to the same DMX Base channels and is in CNTL/MODE/DMX with MSTR mode switched 'OFF'.
Also check that nothing else is attached to the DMX sockets which is trying to be a DMX master (like a DMX desk) for instance.

13 Warranty Information

Manufacturer's Limited Warranty

Rotolight Ltd will extend to its customers a Limited Manufacturer's Product Warranty of 1 Year on Manufacturer's Products from their date of purchase. This warranty shall not include General 'wear and tear', and shall be invalidated by tampering with, dropping or damaging the product or misuse. The Manufacturer's Products warranty will specifically not include the tearing or damage to filter Gels, (unless immediately reported upon delivery), water damage to the unit, battery acid damage to the unit, stress fractures to the unit, filter holder or battery mount(unless reported on delivery), or disconnection of wires (unless reported on delivery).
Customer will be solely liable for any and all shipping costs, duties and import taxes of any components or units returned for service/repair. This warranty is subject to the manufacturer standard terms and conditions available on request. This product is made for professional use.

Extended 3 year warranty is available within the first month of purchase from www.rotolight.com

Register online now to activate your warranty at **www.rotolight.com/register**

14 Limitation of Liability

The liability of the Manufacturer or Distributor, if any, for damages for any claim of any kind whatsoever with regard to any order placed for the Manufacturers products, regardless of the delivery or non-delivery of the Products, or with respect to the Products covered thereby, shall not (except in respect of liability for death or personal injury caused by Manufacturers or Distributor's negligence or in the case of fraud) be greater than the actual purchase price of the Products with respect to which such claim is made. Under no circumstances shall the Manufacturer or Distributor be liable for injury or harm caused by product misuse or compensation, reimbursement, or damages on account of the loss of present or prospective profits, expenditures, investments, or commitments, whether made in the establishment, development, or maintenance of business reputation or goodwill or for any other reason whatsoever.

15 Credits

Conceptual Design and Imagineering	Rod Gammons
Artwork	Robert Turner
SFX Consultant	Stefan Lange
	D.O.P & Visual FX Veteran (James Bond, Notting Hill)

16 Rotolight Quality Assurance

Your Rotolight has been individually examined and found to pass Rotolight's quality assurance testing.

CHECKED BY		SERIAL #	
WiFi ZONE		FIRMWARE VERSION	

OPERATIONS TEST

DMX	DC IN	Battery	Switch	WiFi	Encoder
☐	☐	☐	☐	☐	☐

ACCESSORIES

PSU	Xtra	AC Cord	Manual	Gel Frame	Gels	Barn Doors
☐	☐	☐	☐	☐	☐	☐

THE NEW ROTOLIGHT ANOVA PRO 2

"GAMECHANGER"

ROTOLIGHT ANOVA LIGHTS CELEBRO STUDIOS LONDON!

"The Rotolight Anova is really the perfect light for working in a live television environment and we have over 50 Anova's in the space. What the Rotolight has given us is the ability to light people accurately very very quickly, and that has saved us so much time, it has saved us mistakes on air and its also saved us a lot of money. The power efficiency of the Rotolight Anova is one of the biggest things that drew us to it, and the lack of requirement for maintenance is also massive deal for us. The response from our clients has been amazing, and we work with companies like MTV, BBC and TRT world the Turkish state broadcaster.

There are so many advantages to using this system, we get cost efficiencies and cost savings, we get flexibility in the way that we work, we get clients happy which is very very important, and really importantly, every presenter who walks into our studios always asks, what are your lights - they make me look good!"

- Wesley Dodd CEO Celebro Media Studios

ROTOLIGHT ANOVA AT THE SUNDANCE FILM FESTIVAL WITH MARK MANN & LEICA

At this years Sundance Film Festival , Celebrity Portrait Photographer, Mark Mann , was asked by Leica to create a series of A-List portraits. All the portraits were lit using Rotolight ANOVA, thanks to its exceptional colour rendering and soft light characteristic. The shoot featured A-List actors including Jack Black, Spike Lee, Margot Robbie, Jason Swartzman, Ejiofor Chewetil, Zachary Quinto, Jason Sudeikis, Chris Pine, Johnny Knoxville, Slash, James Franco

"I'm really enjoying the flexibility of the Anova lights, they really have been my go to light for the last year. Just like the camera ,the lights guide the shot."

"The build quality of the Anova PRO 2 is exceptional, as is Rotolight's support. I love the quality of the Anova PRO 2 lights, it was really easy to shape the light with the Rotolight LEDs in an way that was complimentary to each subject, keeping a palette of warm skin tones, from a natural looking soft-light."

CHRIS YACOUBIAN DIRECTOR OF PHOTOGRAPHY - ITV's DANCING ON ICE

Chris Yacoubian, director of photography for ITV's 2018 Dancing on Ice glamour and profile shots, used 30 Anova PRO 2s as an integral feature for the show's dramatic new look. Thanks to their attractive aesthetic and broad functionality; Chris designed the lights to be visible in shot and envisioned five custom designed hex-rings each consisting of six Anova PRO 2s in a large ringlight configuration.

"I saw the Anova PRO 2 clustered together and that just sparked my creativity. The lights are powerful, portable and beautiful in terms of their colour rendition and skin tones. They are a fantastic tool and deliver and perform perfectly. In a studio literally made of ice, we constantly pushed them to their limits and they haven't let us down. Apart from the great functionality, the lights are really energy efficient, which was vital for us as we were running so many at the same time. They are also safe and generate no heat that we had to worry about, while drawing hardly any power — unlike traditional lighting. They are a seriously versatile tool for your kit!"

© Benedict Cumberbatch by Mark Mann lighting by Rotolight Anova

ROTOLIGHT

ANOVA PRO II

WWW.ROTOLIGHT.COM

MADE AT PINEWOOD STUDIOS, UK