



SES

THE POWER
SPECIALISTS

WE ARE THE LEADING MANUFACTURERS OF POWER DISTRIBUTION PRODUCTS FOR THE ENTERTAINMENT INDUSTRY

The Company was originally formed in 1988 with the vision of manufacturing and selling electrical equipment to the construction industry. In 1994 the Company changed direction when SES Film & TV was formed as a trading division.

Since becoming SES (Entertainment Services) Ltd, we have gone from strength to strength, becoming the leading manufacturer of power distribution for the entertainment industry within the UK, and around the World.

We are incredibly proud to be a British manufacturer and we have built our reputation in the entertainment industry by using only the highest quality components, combined with a customer focussed approach to the design and manufacturing process. We provide power distribution to both the temporary and permanent sides of the industry, with our kit covering every type of event, from festivals, theatre companies and film sets, to product launches and corporate events.



For the last 30 years SES have been involved with most of the live events, film and theatre productions, in the UK. However, we also supply many of the largest rental companies around the world. Working on so many productions it is difficult to know what our equipment ends up powering. We have also initiated partnerships with companies throughout the world to ensure that we are providing our customers with the highest quality product available. With over 80% of our products being custom built to each individual client's specifications, our range caters for every aspect of the entertainment industry.

SES (Entertainment Services) Ltd is a member of Plasa and is a BS EN ISO 9001:2018 accredited organisation.



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The custom built 19" rack units used by the lighting industry are designed in-house and are fabricated from power coated Zintec steel. The CAD design is supplied to the client before the manufacturing process begins, to ensure that the design is approved and fit for purpose. The components are selected for their reliability as the constant transportation of lighting equipment could induce faults in lesser quality components. The units are also constructed to bear in mind that trained technicians may need access inside the equipment for servicing.

72 Way



Supplied in a Tourgrade Flightcase, available in various colours and can have logos added. Full colour logos and text can be added free of charge to the rack.

Input: 400A Powerlock with overall protection from 400A MCCB with shunt trip with variable time variable sensitivity switchable earth leakage relay (VT/VS/SW). Neutral monitoring. Either with unprotected 400A link-through or with a 250A MCCB (as shown). Overall digital multimeter (Smart meter can be added).

Output: 12 x Soca with Power Present LEDs each protected by 6 x 16A RCBO. 1 x 63A/3 with Power Present LEDs protected by 63A 4P MCB. 1 x 32A/3 with Power Present LEDs protected by 32A 4P MCB. 6 x 16A/1 with Power Present LEDs each protected by RCBO. Dual USB charger. 5 LED display with earth disconnect button for PAT testing. (Other CEEform options available, 63A/3 and 32A/3 available with VT/VS/SW).

With bi-colour LED light strip.



1

Prolight 19" Rack light manufactured in-house by SES with white and blue LED strip

2

Backlit Digital Multimeter

3

Variable earth leakage sensor complete with bypass (VT/VS/SW) module

4

Choice of overall incoming protection via MCCB

5

Your logo engraved onto the MCCB plate



"We have a great relationship with SES; they have been building our fleet distros for many years. Not only do they build what we want, when we want it, they understand the way we work and accommodate all our demands. They are also a great bunch of people."

Simon Stuart, Managing Director, HSL Group Holdings Ltd





36 Way Multi-Rack

Input: 400A Powerlock with unprotected link through and Power Present LED's. 4 x Ammeters (3 x Phase, 1 x Neutral). 1 x Voltmeter with phase switch. Overall Protection via 250A 4P MCCB.

Output: 12 x Soca wired in pairs with Power Present LED's each protected by 6 x RCBO. 3 x 32A/3 with Power Present LED's each protected by 32A 4P RCBO. 6 x 16A/1 with Power Present LED's each protected by RCBO.

125A Harting Rack

Input: 125A/3 with 125A 4P MCB with VT/VIS/SW with unprotected link through. Digital multimeter.

Output: 6 x Harting each protected by 8 x 30mA RCBO.
1 x 32A/3 protected by 32A 4P MCB with VT/VIS/SW
2 x 32A/1 each protected by RCBO
2 x Schuko each protected by RCBO
Harting earth terminal.



"SES has supplied White Light with mains distribution equipment since 1997. We have always enjoyed an excellent relationship, working in partnership to achieve the best solutions for our ever growing and evolving requirements. SES now supply White Light with equipment for use in our rental business, for installation in new venues we are equipping, and for our sales division."

David Isherwood, Hire and Technical Director, White Light



400A 72 Way European Rack

Input: 400A Powerlock with unprotected link through Phase Present LED's, protected by 400A 4P MCCB and VT/VIS/SW RCD Digital Metering. With built-in fans.

Output: 12 x Soca wired in parallel with 9 x Hartings with Power Present LEDs protected by 72 x 16A RCBOs. 1 x 32A/3 with Power Present LEDs protected 32A 4P MCB and 40A 30mA RCD. 6 x 16A/1 and 6 x Schuko wired in parallel with Power Present LEDs each protected by 16A RCBO.

Type 12

Input: 63A/3 with unprotected link through.

Output: 3 x Soca each protected by 6 x 16A RCBOs.





SES provides most of the major companies involved in the sound industry with their bespoke designed products. Whether they are used for a band which is touring around the world, a theatre production in the West End, or a one-off live event. Ensuring that the sound is as it should be is a vital component of how the entire final production is received by the audience.

SES design and manufacture different units to meet the customers specifications. Most of these units are bespoke, however the general manufacturing and fabrication process are fairly similar, only the number of sockets, or optional extras vary from product to product. Supplying to most of the biggest names in the industry, SES equipment has been used on most major events, world tours and festivals for over 25 years.



World Tour Rack

This unit operates both in European 400V/3 and US 208V/3 systems. This rack was originally designed for Skan PA, for a major world tour.

Input: 400A Powerlock. Main 400A 4P MCCB with VT/VS/SW. Total load individual ammeters for all 3 phases and neutral currents. Switchable volt meter showing phase to phase, phase to neutral, and neutral to earth. Also a set of link through ammeters.

Output: 1 set Powerlock protected by 250A 4P MCCB. 1 set Powerlock protected by 125A 4P MCCB. 12 x Soca each protected by 6 x 16A 1P MCB. The conversion from European to US voltages are via bus bar links.

SOUND POWER

1

Din rail mounted digital meter with fuse protection

2

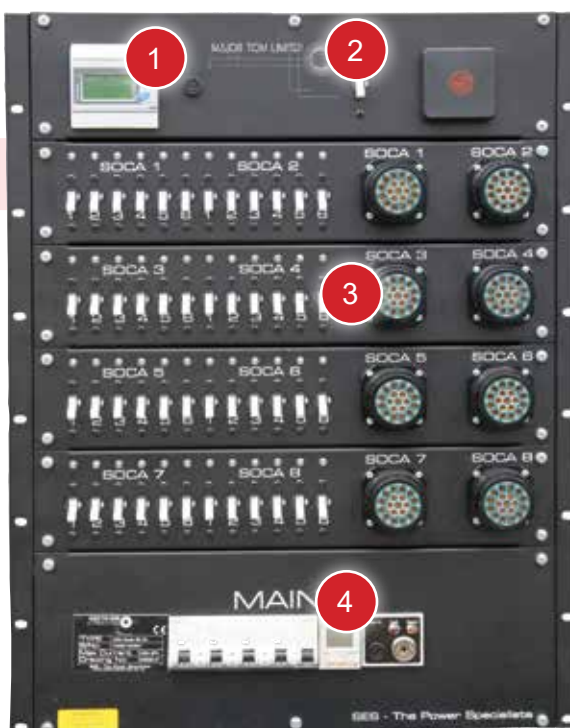
Customer logo engraved

3

Soca Connector

4

Variable Earth Leakage Sensor with bypass module (VT/VS/SW)



Current Sensing Sound Rack

Input: 125A/3 protected by 125A 4P MCB with variable VT/VS/SW.

Output: 8 x Soca each protected by 6 x 20A MCB. Each channel has a bi-colour LED indicating 'Red' for Power Present and 'Yellow' for Under Load. 2 x 63A/3 each protected by 63A 3P MCB. 2 x 32A/3 each protected by 32A 3P MCB. 2 x 32A/1 each protected by MCB. 6 x 16A/1 each protected by MCB. 1 x 13A protected by MCB.



125A Wing Distro

Input: 125A/3 protected by 125A 3P MCB with VT/VS/SW. Individual ammeters for all 3 phases and neutral currents. Switchable volt meter showing phase to phase, and phase to neutral.

Output: 1 x 63A/3 protected by 3P MCB. 7 x 32A/3 each protected by 3P MCB. 4 x PowerCon protected by 20A RCBO.



32A 19" Rack

Input: 32A/3. Digital multimeter.

Output: 12 x PowerCon each protected by 16A RCBO.



PowerCon Truss Distro

Input: Soca with unprotected link through.

Output: 12 x PowerCon.



AUTOGRAPH

"SES gives me small-company service and attention, and big-company reliability and support. My outrageous demands and deadlines are met with good humour where possible, and with honesty where not."

Jim Douglas, Senior Hire Production Engineer, Autograph Sound recording

EVENT & POWER DISTRIBUTION

This sector of the industry can be quite varied; however the similarity would be the large number of units needed to power the event, and the high-quality cables to connect them. For units above 800A there is a range of powder coated Zintec steel freestanding mains distribution assemblies. They can incorporate a wide range of incoming and outgoing options from MCCBs and variable earth leakage relays to hard wiring, Powerlock and CEEform sockets. After the heavy steel mains units we supply our PowerPro range of HDPE distros. These are normally from 400A downwards and can be fitted with a large range of sockets and switchgear. The HDPE products can be further customised by engraving logos and idents to our customers' specification. The larger units can also be housed inside a stainless 'crash' frame to give them extra protection.



400A Framed Unit

Input: 400A Powerlock with unprotected link through and overall protection via 400A 4P MCCB.

Output: 1 set 400A Powerlock protected by main MCCB. 2 x 125A/3 with Power Present LEDs each protected by 4P MCB and Earth leakage VT/VIS/SW. 3 x 63A/3 with Power Present LEDs each protected by 4P MCB and Earth leakage VT/VIS/SW. 4 x 32A/3 with Power Present LEDs each protected by RCBO. 6 x 32A/1 with Power Present LEDs each protected by RCBO. 12 x 16A/1 with Power Present LEDs each protected by RCBO.



"We have been buying distro from SES for a number of years, great quality combined with amazing service makes SES an easy choice."

Mark Butler – Head of Sales – Flow Solutions

1

Casing of HDPE PowerPro can be engraved with your company logo

2

Individual power present indicators

3

Nylon headed screws to ensure class 1 insulation

4

Engraved numbers identify each circuit

5

External earth tag

6

Rubber feet for stacking

32A PowerPro

Input: 32A/3 complete with unprotected link through.

Output: 12 x 16A/1 with Power Present LEDs each protected by RCBO. 6 x 16A/1 with Power Present LEDs each protected by RCBO.



63A PowerPro

Input: 63A/3 protected by 63A 4P MCB

Output: 1 x 63A/3 protected by main MCB. 2 x 32A/3 with Power Present LEDs each protected by MCB with VT/VIS/SW. 6 x 32A/1 with Power Present LEDs each protected by RCBO. 6 x 16A/1 with Power Present LEDs each protected by RCBO.



EVENT & POWER DISTRIBUTION

"Being one of the top three event technology rental suppliers in the region we have a reputation to be upheld, and standards that must be kept. This is why we prefer to use SES for our Power Distribution. For 15 years the quality of the products and service we have received from the SES team has been resolute. There is really no other choice."

Martin Lubach - General Manager - Eclipse Group LLC



ST037

Input: 400A Powerlock with unprotected link-through. Overall protection via 400A 4P MCCB with VT/VIS/SW. Overall digital metering.

Output: 2 x 125A/3 with Power Present LEDs each protected by 125A 4P MCB. 3 x 63A/3 with Power Present LEDs each protected by 4P MCB. 3 x 32A/3 with Power Present LEDs each protected by 32A 4P MCB. 3 x 32A/1 with Power Present LEDs each protected by RCBO. 12 x 16A/1 with Power Present LEDs each protected by RCBO. 3 x Soca with Power Present LEDs each protected by 6 x 16A RCBOs.

External earth stud. This unit can be fitted into a stainless steel frame as an additional option.



ST032

Input: 125A/3.

Output: 1 x 63A/3 with Power Present LEDs protected by 4P MCB. 4 x 32A/3 with Power Present LEDs each protected by RCBO. 6 x 32A/1 with Power Present LEDs each protected by RCBO. 6 x 16A/1 with Power Present LEDs each protected by RCBO. Built with an external earth stud.

2000A MDA

Freestanding Mains Distribution Unit powder coated steel with galvanised crash frame fitted with lifting eyes and forklift pockets.

Input: Terminals to 2000A 4P Air Circuit Breaker.

Overall Metering.

Output: Hard wired with 4 x 400A 4P MCCB.
2 x 125A/3 each protected by 2 x 63A 4P MCB.
2 x 63A/3 each protected 2 x 63A 4P MCB.



125A AMF Panel

Input: 2 x 125A/3 Appliance inlet, 1 x Mains, 1 x Standby.

Output: 1 x 125A/3 socket with remote start outlet and auxiliary power socket. Neons to show availability of each source and which source is under load.



"Here at 11th Hour Events we have been consistently growing, due to hard work, a great team and also down to great equipment. We have been using SES for a while now and they have supplied our Distro without any issues. Supplying from 32amp 3 phase up to 1600 amp 3 phase. The team at SES have helped us on many occasions to design and build exactly what we need when we need it."
Andy Hopkins, Project Manager and Director, 11th Hour Events

1250A MDU

Input: 1250A 4P MCCB Digital Metering.

Output: 3 x 400A Powerlock each protected by 400A 4P MCCB with VT/VIS/SW. 3 x 125A/3 each protected by 125A 4P MCB with VT/VIS/SW.



FILM & TV

The Film and TV industries work in various locations for filming, from inside studios to remote sets around the world. Due to this, SES have designed a variety of different units which are able to distribute power no matter where it might end up. Manufacturing a range of portable units for temporary applications fabricated from HDPE, building a large selection which incorporate BAC, Powerlock, Vanten and CEEform connectors with various types of switchgear.

SES has been providing equipment to the industry for over twenty years and the technology has changed a lot in that time, this has meant that SES equipment has changed and improved over that time period, not to keep up but to be able to provide more than what is required to a higher than expected standard.

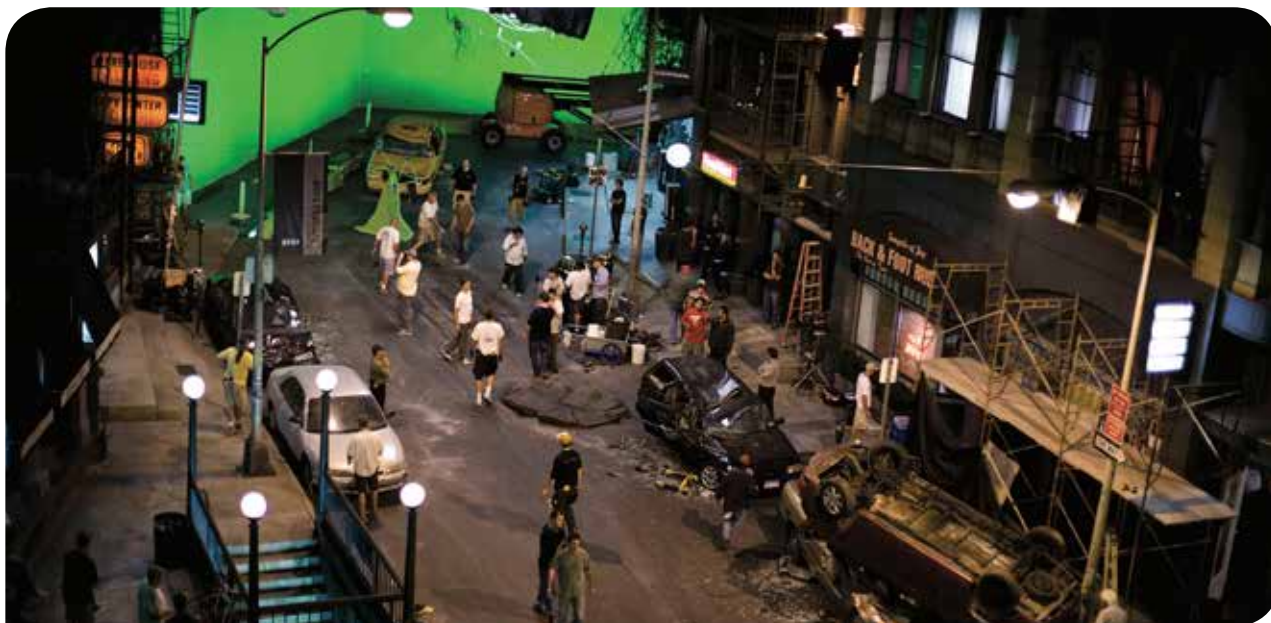
SES also supply permanently installed panels for studios and panels for installation into existing production trucks.



63A FDU

Input: 63A appliance inlet with unprotected link through.

Output: 3 x 32A/1 with Power Present LEDs each protected by RCBO. 6 x 16A/1 with Power Present LEDs each protected by RCBO.



1

Logo on the top of the box if requested

2

Recessed front and rear plates for component protection

3

Internal or external handles

4

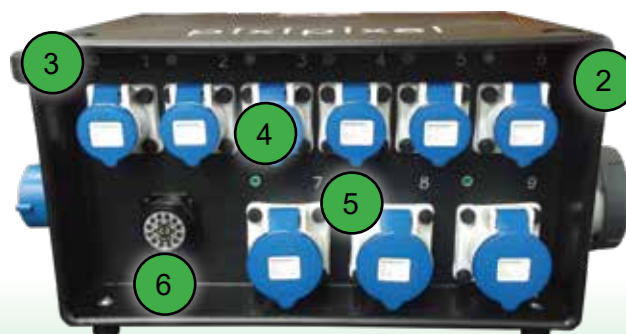
SES only use quality CEEform from recognised manufacturers

5

Engraved and back-filled circuit identification

6

Soca connector



FDU

Input: 63A/1 with unprotected link through.

Output: 3 x 32A/1 with Power Present LEDs each protected by RCBO. 1 x Soca wired in parallel with 6 x 16A/1 with Power Present LEDs protected by RCBO.

Film & TV Services

"Film & TV Services have been working with the guys from SES for over 20 years now, with them providing high quality, resilient power distribution systems for the reliably demanding television outside broadcast industry. They are always flexible with designing and building to suit our specific requirements and deliver a great product within our tight timeframes"

Chris Pratt, Technical Director, Film and TV Services

K9

Input: 32A/1

Output: 4 x 16A/1 with choice of MCB or RCBO protection.



BAC Distro

Input: .2 BAC with unprotected link through.

Output: 6 x 63A/1 with Power Present LEDs each protected by MCB and RCD.



44/11

Input: .2 BAC with unprotected link through.

Output: 3 x .1BAC with Power Present LEDs each protected by 160A MCCB with VT/VS/SW.



"SES has been supplying PKE with Power Distro for over ten years. Whether it is our standard format or something out of the ordinary, SES have managed to produce the product on time, in budget and to a very high standard, and that is why we use them. From design to delivery, SES has always managed to supply PKE exactly what we require in turn enabling PKE to service our clients."

Mike Pollard, Director, PKE Lighting Ltd



K9

Input: 32A/1.

Output: 4 x 16A/1 each protected by RCBO.



Vanten Distro

Input: Vanten with unprotected link through.

Output: 2 x 63A/1 with Power Present LEDs each protected by MCB and RCD. 4 x 32A/1 with Power Present LEDs each protected by RCBO. 2 x 16A/1 with Power Present LEDs each protected by RCBO.



SOCA Framed Distro

Input: .2 BAC/3 with Power Present LEDs protected by 400A 4P MCCB.

Output: 18 x Soca with Power Present LEDs each protected by 6 x 16A RCBO.

INSTALLED PRODUCTS

Installed units are designed to meet spatial as well as operational requirements and may incorporate interfaces with other products being installed. A number of the leading venues, auditoriums and theatres throughout the UK and the World, have panels installed which are designed and built by SES.

SES prides itself in meeting the needs of the customer, and due to this, full manufacturing drawings are supplied prior to fabrication and these are maintained for a minimum of ten years after the installation is complete, as reference for any maintenance work.

By their nature, panels are virtually always unique to their purpose and destination. They can be wall mounted or free-standing, and can be finished in a variety of colours with the option of engraving front panels and/or labels. The units are able to accommodate almost any type of electrical control gear and incorporate other manufacturer's components and control circuitry if required.

Circuit protection is always from premium brand manufacturers. For the Theatre market bespoke panels are normally designed for installation during the construction or refurbishment stage.

For temporary and touring companies there are a range of boxes, fabricated from flame retardant high density polyethylene that have been manufactured for this niche market.





125A Theatre Panel

Input: 125A 4P isolator with Digital multimeter.

Output: 1 x 125A with Power Present LEDs protected by 125A 2P MCB with VT/VS/SW. 2 x 63A/1 with Power Present LEDs each protected by 63A 2P MCB with VT/VS/SW. 2 x 32A/1 with Power Present LEDs each protected by 32A 2P MCB with VT/VS/SW.

1

Powder coated zintec steel in a range of colours

2

Lockable hinged doors

3

Separate containment with sectional chambers

4

Wide choice of outgoing options

5

Wide choice of incoming devices



Typical Small Facility Panels

These panels are installed at the Nenagh Theatre in The Republic of Ireland. These are just examples of the small facility panels that we are able to make and provide, depending on the specification.



Typical Facility Panel

This panel was designed, built and installed at the Ballina Theatre in The Republic of Ireland. 2 x 16A/1 complete with 16A Isolators wired back to the terminal. 2 x DMX 5pin in and out. 2 x XLR 3pin female.

INSTALLED PRODUCTS



Typical PLB

This was designed and built for the Severn Theatre, Shrewsbury.

3 x Soca wired in parallel to 18 x 16A/1 wired back to terminals. 3 x 16A with Power Present LEDs wired back to terminals. 3 x 32A/1 wired in parallel to 2 x 16A/1 each protected by MCB wired back to terminals. 5 x twin 13A each protected by 16A RCBO wired back to terminals.



"SES have been a key partner to SWG in our growth since 2015 and have supplied us with over 250 boards so far, really helping us up our game on our kit quality. The build quality has been excellent, backup support exceptional and we would thoroughly recommend SES to anyone looking for a long-term distro and equipment manufacturer."

Tom Wild – Ops and Projects Director – SWG Power



250A Theatre Panel

Input: 250A 4P Isolator.

Digital Metering.

Output: 1 x 125A/3 protected by 125A 4P MCB with VT/VS/SW. 1 x 63A/3 protected by 63A 4P MCB with VT/VS/SW. 3 x 63A/1 each protected by 63A 2P MCB with VT/VS/SW. 3 x 32A/1 each protected by 32A 2P MCB with VT/VS/SW.



400A Theatre Panel

Input: 400A 4P Isolator.

Digital Meter.

Output: 1 set Powerlock protected by 250A 4P MCCB with VT/VS/SW. 1 x 125A/3 protected by 125A 4P MCB with VT/VS/SW. 1 x 63A/3 protected by 1 x 63A 4P MCB with VT/VS/SW RCD. 2 x 32A/3 each protected by 32A 4P MCB with VT/VS/SW. 1 x 16A/3 protected by 16A 4P MCB with VT/VS/SW.



"SES are a pleasure to deal with, they listen to our every need, deliver equipment on time and they are supportive throughout. Highly recommended."

James Finch – Finch Electrical Distribution Ltd



600A Theatre Panel

This panel was designed and produced for Northern Light and was installed in Edinburgh International Conference Centre (EICC).

Input: 600A 4P isolator. Digital meter.

Output: 1 set 400A Powerlock protected by 400A MCCB. 2 x 125A/3 each protected by 125A 4P MCB. 3 x 63A/3 each protected by 63A 4P MCB. 3 x 32A/3 each protected by 32A 4P MCB.



From exhibitions to product launches, and conferences to corporate events, the Audio Visual (AV) market is one of the fastest growing sections of the industry. The need for safety and professionalism is paramount, especially where high profile clients can see the handiwork.

SES manufacture a complete range of products for this market, all designed and produced in house by qualified technicians. The newest ranges of products are designed to provide multi low power socket outlets in purpose built carcasses. These designs allow a high degree of flexibility with the type of sockets. We can utilise 32A, 16A, 15A, 13A Schuko and any other national sockets in the units. This enables our products to be used for a multinational product rollout.



32A/3 Floor Box

Input: 32A/3 with Power Present LEDs protected by RCBO.

Output: 3 x 32A/3 with Power Present LEDs.



6 Way Floor Box

Input: 16A/1 link through.

Output: 6 x 13A.

This product is available in 6, 8, 10, 12 and 14 Way configurations.



Soca Truss Box

Input: Soca with link through.

Output: 6 x 16A/1 supplied with 2 truss clamps.

125A Hurricane

Input: 125A/3.

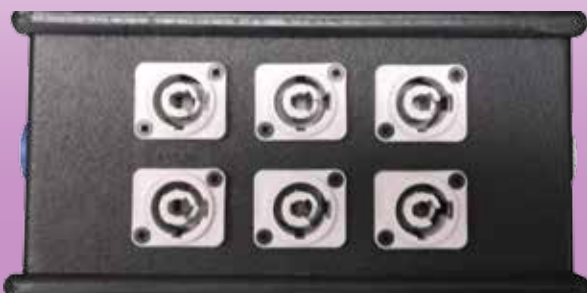
Output: 2 x 63A/3 each protected by 63A 4P MCB.



Mountable PowerCon Distro

Input: 20A PowerCon with unprotected link through.

Output: 6 x 20A PowerCon.



Mountable True1 Distro

Input: True1 PowerCon with unprotected link through.

Output: 6 x 20A True1 PowerCon.





SES has been producing power distribution for a wide variety of industries for many years, from portable units to permanent heavy power products. The principals involved in power distribution are the same whatever the final use of that power is. Electrical safety is as important on a film set as in an engineering role and SES ensures that every piece of kit that leaves our warehouse has been fully tested by our qualified test technicians.

SES's capabilities mean the panels can be produced for a wide range of uses and environments. Permanent panels can be produced for use in factories and on-board ships. Large outdoor distribution units are just as easily designed for dockside applications or for military camps. Temporary power is required in a multitude of cases, maintenance shutdowns in petrochemical and pharmaceutical plants, to emergency and disaster recovery situations, where all the power has to come from temporary generators.

With natural and human disasters unfortunately on the rise around the world there are many different occasions where heavy duty industrial power is needed. However it is not all bad news, some of our kit is also used for expeditions to the furthest parts of the world, or large scale charity relief for recovering areas.

400A WMU

Input: Hard wired incoming with protection of 400A 4P MCCB.

Output: 1 x 63A/3 protected by 63A 4P MCB and 63A 30mA RCD. 10 x 32A/3 each protection by RCBO.



2400A Load Sharer

HDPE enclosure with steel substructure, fitted with fork lift pockets and lifting eyes.

Input: 6 x 400A Powerlock.

Output: 6 x 400A Powerlock.

1250A Industrial Framed Panel

Input: 1250A 4P MCCB.

Digital Metering.

Output: 3 x 400A 4P MCCB with VT/VS/SW (Hard Wire Output). 2 x 125A/3 each protected by 125A 4P MCCB with VT/VS/SW. 2 x 63A/3 each protected by 63A 4P MCCB with VT/VS/SW.



1

Stainless steel hinges to suit tough conditions

2

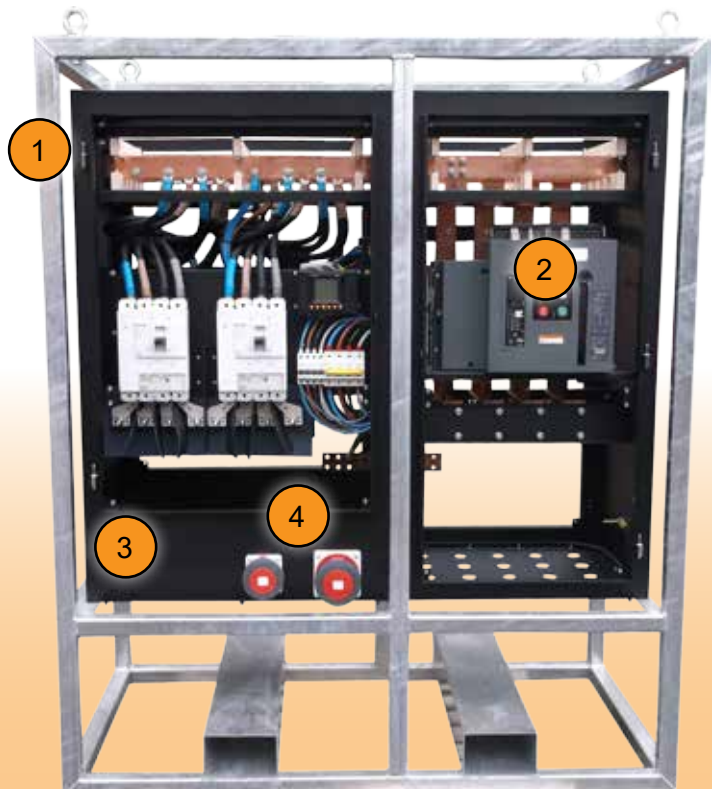
Lockable and weather proof chambers for security and safety

3

There is a range of colours and finishes available

4

1P44 or 1P67 connectors to suit the application



DIMMERS

SES are the exclusive UK and Middle East distributors for PLS Electronics. We work closely with them and share in product development of new products for the industry. With their manufacturing based in Hungary, they offer a cost effective and timely solution to a range of innovative dimming products for touring, film and TV, and installation projects.

We can also modify the standard range to accommodate user's requirements to provide a bespoke solution.

Portable Dimmers

Handy One

The second generation of our Handy One series is a robust, fanless, single channel dimmer pack with high output filtering, specially designed for areas where low noise is critical. It comes with fully isolated DMX input, built in potentiometer for local control and easy mounting to trussing.



Three models: 2.3kW (1 x 10A), 3 kW (1 x 13A) and 3.7 kW (1 x 16A).
CEEform 16A, UK BS13630, Shuko or Swiss sockets for outputs.
Power input via rubber cable without plug.
Global DMX start address set on rotary switches.
Linear fader for local control (enabled if DMX is not present).



Riggdimm

When an installation needs only one or two DMX or locally controlled dimmer channels to the same standards as the big pro dimmer packs, then the Riggdimm is just the product. This unit has many useful options such as DMX input, built-in potentiometer for local control and easy mounting to trussing.

Four different models: 2 x 1.4kW (2 x 6A), 2 x 2.3kW (2 x 10A),
1 x 2.3kW (1 x 10A) and 1 x 3.7kW (1 x 16A).
CEEform 16A, UK BS13630, Schuko, Swiss sockets or outputs.
Power input via rubber cable.
Global DMX start address set on seven segment display by push buttons.
Test function to check operation and loads.
Operational C-hook plate for rigging.

MD-1

This portable one-channel digital dimmer is specially designed for the Film and TV industry. It is available in two models 5.7kW (pictured below left) and the 15kW (pictured below right) dimming capability, with the following common features:



- Low-noise internal fan
- Robust lightweight aluminium body
- DMX or local control
- LED's for trigger level and output level monitoring
- CEEform 32A or CEEform 63A 3P output



1

MINI MASTER. Available in 6 x 2.3kW, 6 x 3kW, 6 x 3.7kW and 3 x 5.7kW models. DMX or local control via illuminated sliders. These are ideal for Film and TV applications where lighting levels need to be adjusted manually.

2

X-LITE. Available in 12 x 2.3kW, 12 x 3.7kW and 3 x 15kW models The X-Lite is the semi-professional 'big brother' of the Mini master. These units are designed for either touring or small theatres and auditoriums.

3

PRO 2. Available in 12 x 2.3kW, 6 x 5.7kW, this is the top end of the range with a host of features only found on more expensive units from our competitors. It has LED's for trigger level and output level monitoring, with a user friendly menu system with LCD screen. Individually adjustable parameters for each channels, and a 16-step user editable screen memory. There is a DMX recording option with adjustable fade-in and out times for memory playback.



PLS

FLX Dimmer

The most flexible of the PLS dimmer range is the FLX series which gives you a freedom to choose individually the output type per channel. They can be standard triac dimmer output or true relay controlled by DMX. The units also have a hot power mode, again selectable per channel. The units are RDM enabled for true control from the desk.

Main features:

Four different power output models: 12 x 10A, 12 x 13A, 12 x 16A and 6 x 25A.

True 225/250 μ s rise time filtering for dimmer output.

Easy menu control with four push buttons and blue 2 x 8 character LCD.

Control signals indicated by green LEDs.

Global DMX address set or SoftPatch.

Individually selectable parameters per channel: Preheat, Maximum level, Control curves (Voltage Linear, 120V, Square, Florescent, TV, BBC, Relay, Power and User-Editable), DMX address (SoftPatch).

Test Function to check channels one by one.

User editable 16 scene memory for standalone mode with DMX Record option.

Internal fan with two speeds plus off depending on internal heat.

Overheat protection (dim down to 50%).

Overload protection by circuit breakers (1P, 1P+N or 2P) or 30mA 1P+N RCBO's.

Line-Neutral swap detection at start up.

SoftFlash handling to eliminate MCB strike down.

The TourDim Range

SES have taken the FLX and built it into two touring racks, both are supplied in tour grade flight cases with FLX units on the backplane connectors to allow for ease of maintenance.



TourDim 24

Input: Powerlock with protection via 125A 4P MCB. Dedicated input DMX connector. Rack lights front and back switchable blue/off/white. 32A/3 with protection via RCBO. 32A/1 with protection via RCBO, 16A/1 with protection via RCBO. 2 x FLX units, each channel with 16A RCBO.

Output: 8 x Soca. All Dimmer channels bi-split.

Tourdim 60



Incoming Powerlock overall protection via 250A 4P MCCB. Output Powerlock protected by 250A 4P MCCB fitted with shunt trip operated by VT/VS/SW.



Overall multimeter, USB charger, dedicated input DMX connector. Racklights front, back and top, switchable blue/off/white.

Output: 1 x 32A/3 protection by RCBO feeding 96 Wieland Patch connectors. 1 x 16A/1 with RCBO protection. 12 x Hard Power channels each protected by 16A 30mA RCBO, feeding 12 x Wieland Patch connectors.

4 x FLX each channel protection by 16A RCBO.
16 x Soca and 4 x 16A/1 fed from 100 x Wieland Patch connectors.

Space for 1U Split 7 DMX splitter or ArtNet node.

Unit supplied in a tourgrade flightcase with Patch cables



MOTOR CONTROL

SES, working with PLS, has collaborated to jointly develop and produce a range of motor control products for the touring industry. Available in both low voltage and direct control. These units can be configured to meet the most exacting demands of the users.

All the units are designed to meet the SIL3 level of EN62061 and are compatible with all the most common motors like Chainmaster, Verlinde, CM Loadstar, and Prolyft etc.; available in 4, 6, 8 and 12 way versions.



Technical Specifications

- Automatic phase sequence correction.
- Automatic phase present/drop detection.
- Fully linkable Start and E-Stop signal with other units.
- Included link cable (2m).
- Compatible with:
 - EN62061 (Functional Safety of Machineries - SIL3 level).
 - EN60204-1 (Safety of Machinery -General).
 - EN60204-32 (Safety of Machinery-Hoists and accessories).
- Automatic Master/Slave detection.
- Remote controllable directions with wired remote controller (10m cable included).
- Double-locked contactors with positively driven contacts for each motor (Direct only).
- Optical MCB trip detection (for E-Stop) with key-lock disable function.



- Two external E-Stop input (load cells or E-Stop buttons).
- Pickle mode for Low Voltage versions.
- Independent AUX output with RCBO protection.
- Power outputs on CEEform 16A/4P or 5P sockets.
- Control outputs on CEEform 16A/4P yellow on Low Voltage versions.
- Optionally multipin sockets 'Harting' or 'Socapex'.
- Indicators for line present.
- Mains via 1.5m H07 cable with 32A/3 plug.

Digital Hoist System

The preliminary functions for the digital hoist control system are:

- 8 or 12 channel versions in Low Voltage or Direct versions.
- Remote Controller can be 8,12,24,32 or 36 channel.
- Bi-Directional digital control signal on RJ45 (CAT6 or CAT industrial cable).
- Linkable control signal between the controllers, the system automatically address the controllers in the linked line.
- Separate E-Stop link between the controller. SIL3 and TUV approved.
- Automatic E-Stop state in case of control/link cable connect or disconnect.
- Optional MCB trip detection which causes E-Stop.



"Over the years we have been working with the team at SES we have developed a number of successful, and industry leading products that are very high spec. No matter the size, timescale or complexity of the project, we have been thoroughly impressed by the quality of the work they have produced. Since beginning our relationship with SES we feel that they have become part of the family, we look forward to working on future projects with them."

Sam Ridgway - NEG Earth



CABLES, PLUGS & SOCKETS

SES works in partnership and as a distributor for the most reputable connector and cable brands in the world. Never settling for just meeting the standard, SES work conjointly with these companies to develop and advance the specs and capabilities of these vital components.

Stocking IP44 and IP67, from 16A to 125A in both single and three phases, all the connectors we use are designed to be the toughest and most durable available on the market.

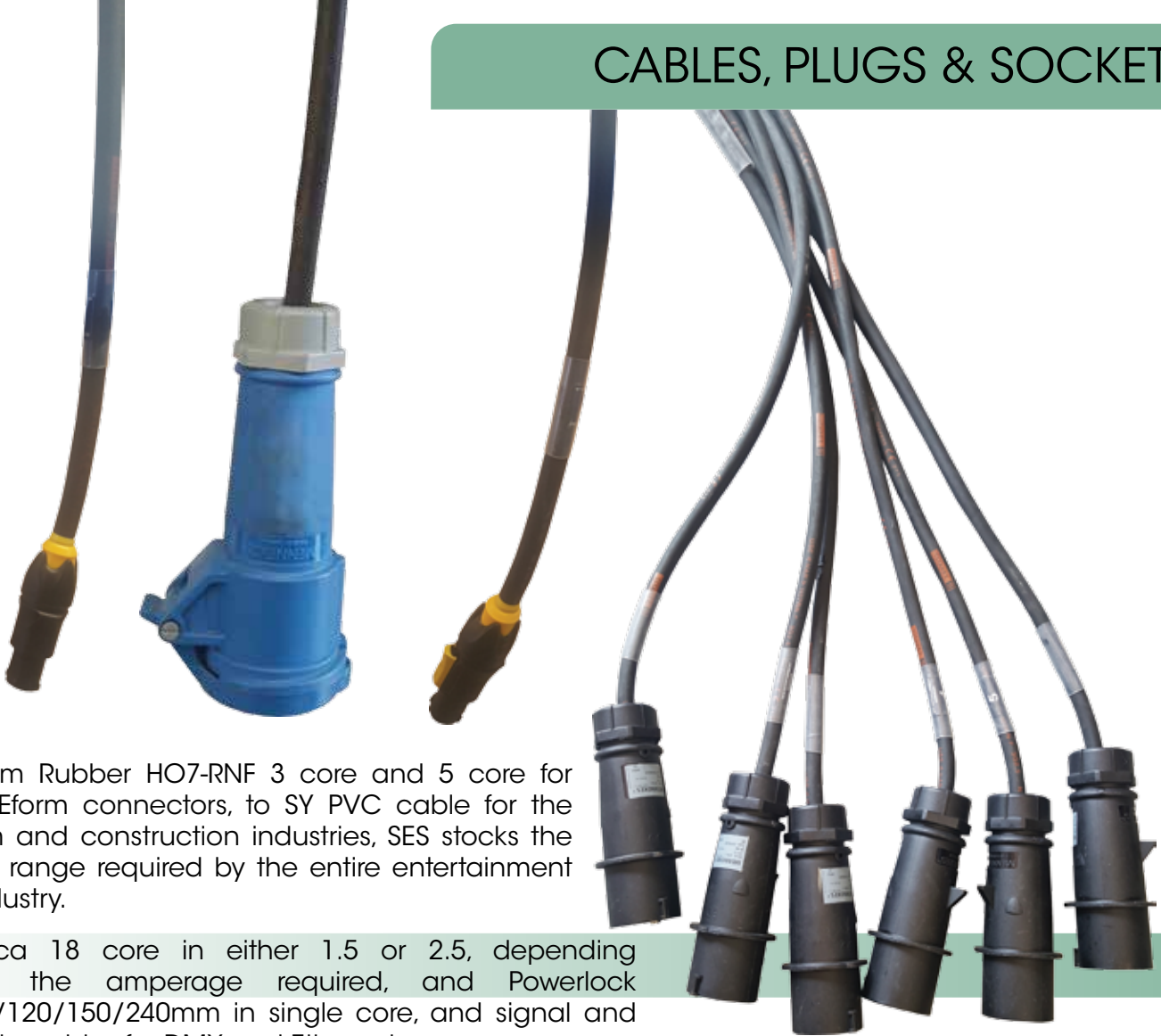
In addition to this we stock a large range of 13A, 15A and more specialised connectors, such as PowerCon, True1 and DMX.

Panel mount connectors are widely used in each sector of the industry, on power distribution panels, for permanent installations, in HDPE power distribution boxes and 19" racks, for the more temporary market.

As well as panel mount connectors SES stock the line connectors in specialist options, for example the clearback and midnight range. Line connectors are wired in house to cables. There are hundreds of different combinations of extension leads, Y-cords and spider cords with varying power requirements and lengths.



 **MENNEKES®**



From Rubber HO7-RNF 3 core and 5 core for CEEform connectors, to SY PVC cable for the film and construction industries, SES stocks the full range required by the entire entertainment industry.

Soca 18 core in either 1.5 or 2.5, depending on the amperage required, and Powerlock 95/120/150/240mm in single core, and signal and data cables for DMX and Ethernet.

All of these cables are cut and built in house, by qualified technicians, using only the best components available.



NEUTRIK

The Soca connector is the industry standard when a number of discreet channels need to be provided by one multicore cable. They are used for lighting, sound and motor control with different configurations. They are the most reliable and safe connectors available.

The Soca connectors that SES offer are the most robust available on the market and are operational and efficient in all situations.



They are available in panel mount and line versions, the line model also being available with fan-in and fan-out glands. This connector has an Earth mate first, disconnect last design.



Designed and manufactured to retro fit all the other industry 19 pin connectors these Soca connectors are available with a wide range of coloured rings and backs, as well as the standard Black range. These Soca are manufactured and tested to withstand the most arduous conditions experienced on the road.

As an addition, which is a free of charge service, SES can engrave your company logo onto the back shell for more personalisation and security.



The exact specifications are:

- Socapex™ SL419 compatible.
- Wear resistant anodised finish.
- Integral insulation sleeves.
- Solder and crimp options.
- IP67 rated when mated.
- ROHS compliant.
- Range of glands to suit various break-outs.
- Screw machined multi point contacts.
- High impact all machined shells.
- Cable glands with bushings for lighting cable.
- Extra-large, easy grip, heavy duty coupling ring.
- Inserts marked with lighting circuit wiring.
- Wall section back shells with locking screws.
- First mate, last break (FMLB) earth contacts.



SES are an official distributor of Phase 3 Powersafe in the UK, and are the only official distributor in the Middle East. This range of connectors are the only fully compatible connectors regardless of the manufacturer.

There are two ranges, one rated at 500A and the other rated at 800A. They are each designed and manufactured in the UK to the strictest quality control and are tested up to 1000 Volts. They also carry a wide range of worldwide approvals, including UL.

Line Drain (Plug)



Added safety and performance enhancements

- Increased current carrying capacity.
- Reduced insertion force.
- Improved cable strain relief.
- Improved impact resistance.
- Mounting plates.
- Daisy chain hook up system.
- IP67 ingress Protection when mated.
- Increased ingress protection rating.
- 800A Maximum.
- Flame retardant.
- Increased short circuit ratings.
- Rubber hand grip of ease for coupling and added impact protection.

Line Source (Socket)



- Colour coded and mechanically keyed to prevent connection errors.
- Locking mechanism to prevent accidental disconnection.
- Finger-proof contact to prevent access to electrical contacts when uncoupled.
- High impact bodies and high temperature resistant materials.
- Integral cable strain relief.
- Metric EN compliant cable glands with increased cable clamping range.
- Available in US, Australia and South African colour code.



Panel Mount

CABLE RAMPS

The SES cable ramp is specifically designed and manufactured for us. These ramps are made from very tough rubber and will protect up to five separate cables from vehicles and foot traffic.

With their maximum load being 5000Kg these units are sturdy, durable and long-lasting. With replaceable hinges and lids these ramps fulfil their purpose and more.

As an addition, to larger quantity orders, SES are able to offer engraving a company's logo onto the top/lid. This adds security and individuality to the cable ramp.



The measurements are:

Length: 900mm

Width: 445mm

Height: 55mm



At SES we offer all this and a variety of services including repair, installation, maintenance contracts and engraving. We also offer a personal design service the details of which can be found on the next page. Similar to all the products that we design and build, all of our services are completed to our very high standards and by our qualified Technicians.

Repair

Our repair service is a lifetime commitment from us to you. If within a 12 month period of receiving our equipment there is a component failure, we will collect it, replace the faulty part, re-test the product and send it back free of charge. If the equipment stops working correctly due to misuse, neglect or damage, we will repair all the failures, replace any components, and re-test with a small charge for in house labour and any replacements required. For as long as our customers continue to order and use our products we will offer the service of repairing them back to the high standard that we feel they should be.

Refurbishment and Test

If you have products that no longer meet the regulations or need annual inspection and testing, we are able to offer a refurbishment and retest service even if the kit was not built by us. We will test the equipment to the latest standard using our in house Data Strategy test bays and give full test results. The below rack was refurbished as the original unit was outdated and no longer fit for purpose, for example changing the 16A sockets to True1 and updating the metering.



Install

We are able to deliver and install products that, for example need to be part of a structure, such as theatre panels and industrial products. This installation process is carried out either by our fully qualified members of staff or using our recommended contractors. The level of installation required will dictate the amount of staff required and therefore the labour charge for this service.

Maintenance Contracts

These contracts are available upon request. They can cover some or all of the maintenance and servicing that might be required for products for a defined length of time between the customer and us. The level of protection that is covered with these contracts is variable and can be changed depending upon the level of maintenance required.

Engraving

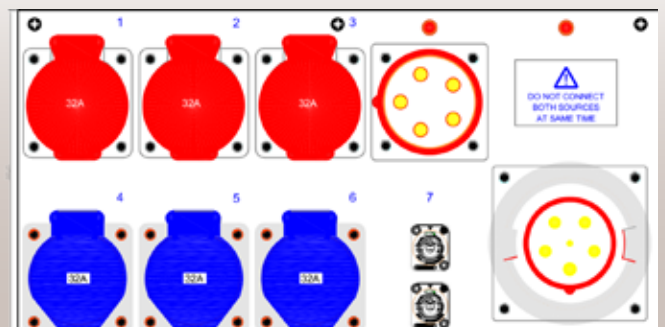
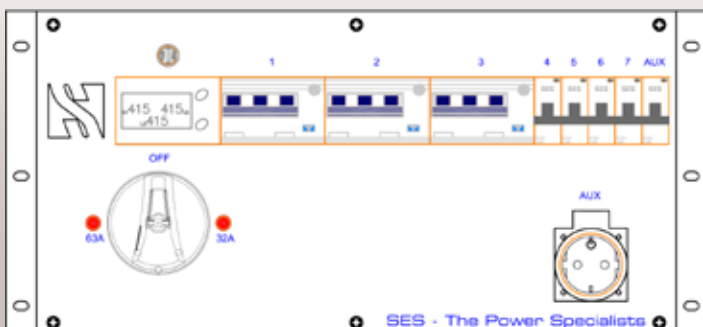
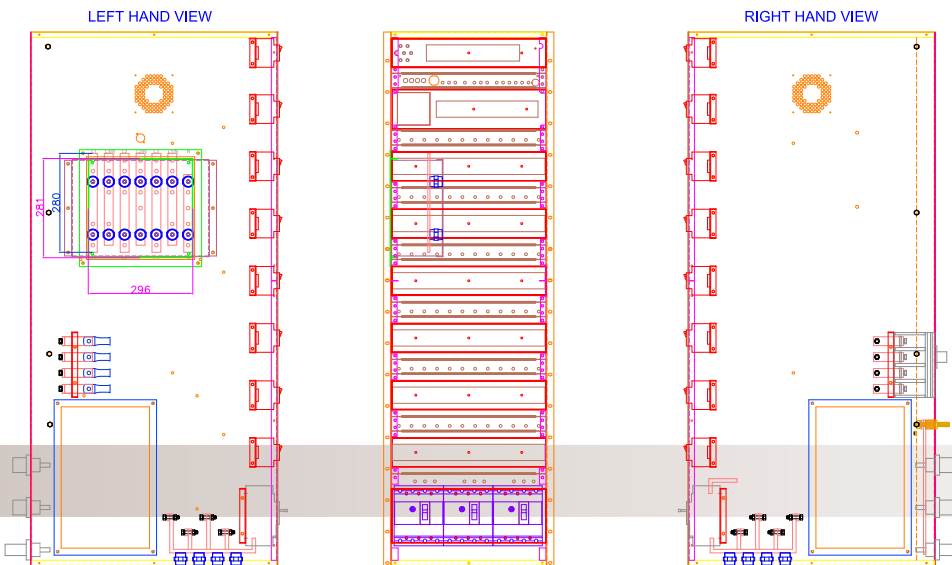
At SES we have the ability to engrave or UV print logos and text onto connectors, boxes, racks, and cable with not just our name and logo, but that of the customers, making our equipment completely individual. We engrave the rating plates which are affixed to our boxes, and can engrave very fine and detailed logos onto plates which are fitted onto the front of our racks. This service is free of charge, and we would highly recommend this as it adds a personal touch to the products.

Design Service

At SES the majority of the products that we produce are designed specifically for our customers needs and will serve a specific purpose. After discussing the needs of the customer, and ensuring that the customer is aware of the regulations that apply to the products, a layout drawing is produced showing the size of the unit and layout of the components.

Once this design has been approved by the customer we use our CAD/CAM systems to carry out the detailed design and manufacture of the enclosure and parts necessary. The SES ISO 9001 approved in house processes ensure that the end product is up to the required standard, of both the customer and SES. The whole production process from design to delivery is completed in house by our trained and skilled employees.

The images, to the right and below, are examples of the CAD/CAM designs which customers have received based on their specifications.





Original photograph courtesy of Esquire magazine by Benni Valsson

Film Productions	<p>The last 10 Bond Films The Marvel Universe Films Star Wars DC Comics Films Mission Impossible Films Fantastic Beasts Films The Kingsman Films Tomb Raider T2: Trainspotting Baby Driver Dunkirk Darkest Hour Paddington 1 & 2</p>	<p>The Fast & Furious Films Murder on the Orient Express Bohemian Rhapsody The Hatton Garden Job The Mamma Mia films Stan & Ollie Mowgli The Chronicles of Narnia films The Sherlock Holmes films Rockelman Mary Poppins Returns Hobbs & Shaw Holmes & Watson</p>
Studios	<p>BBC, Manchester, London and Cardiff ITV, Manchester and London Pinewood, Iver Heath Ealing, London Elstree, Borehamwood Shepperton, Surrey Longcross, Chertsey Warner Brothers, Leavesden The Maidstone Studios Sky, Brentford Fountain studios</p>	<p>Independent studios: Jasper Conran Studios Big Sky Media Clapham Road Malcolm Ryan Studios Leavesden Studios Centre Stage Haliford Studio 23 Mount Pleasant Maida Vale Three Mills Studios Alva West Studios</p>
Installed	<p>Alexandra Palace, London Warwick Arts Centre, Coventry Battersea Arts Centre, London Bloomsbury Theatre, Camden Richmond Theatre, London Westfield Shopping Centres, Stratford and White City Edinburgh international Conference Centre Waterfront Hall, Belfast Siemens Alpha Bravo Project - Off Shore Wind Farm, Hull The National Theatre of Scotland The Royal Festival Hall London The National Malta Opera House The Barbican Centre - London</p>	
Sports Events	<p>Indian Premier League, Cricket The Ashes British Touring Car Championships Premier League UEFA Champions League Royal Ascot Grand National Dubai Rugby 7's The Open Asian Games 2018 Jakarta Wimbledon</p>	<p>The Ryder Cup SBK Superbike World Championships Red Bull Air Race World Cup, Russia, 2018 Commonwealth Games, Gold Coast, 2018 Winter Olympics, Pyeong Chang, 2018 IAAF World Championships, London, 2018 and 2017 IAAF World</p>
Festivals	<p>Isle of Wight Latitude Wireless Glastonbury Lovebox Parklife Reading and Leeds SW4 V-Festival Bestival British Summer Time, Hyde Park Hard rock Calling</p>	<p>T in the Park Global Gathering Rewind Creamfields Download Neighbourhood Weekender Field Day Wilderness Wild Life The Great Escape</p>
Tours	<p>Taylor Swift Ed Sheeran Jay-Z and Beyonce Britney Spears Justin Timberlake The Rolling Stones Eminem U2 Katy Perry Florence and the Machine The Killers Queen and Adam Lambert</p>	<p>Peri Jam 50 Cent Foo Fighters Muse Elton John Noel Gallagher Rod Stewart Arctic Monkeys Def Leppard You Me at Six Iron Maiden Kasabian Level 42</p>
TV Shows	<p>Game of Thrones The Grand Tour BBC Proms Doctor Who X-Factor Britain's Got Talent Call the Midwife The Russell Howard Hour Gunpowder Top Gear Pointless Dragons Den Strictly Come Dancing</p>	<p>The Great British Bake Off Silent Witness Sherlock Doctor Foster Hollyoaks Eastenders Coronation Street Emmerdale Casualty Waterloo Road Taboo The Chase The Brit Awards</p>
Stage Shows	<p>The Lion King Aladdin Wicked School of Rock Thriller The Phantom of the Opera Mamma Mia! Les Miserables Matilda The Musical The Book of Mormon Harry Potter and the Cursed Child The Play That Goes Wrong</p>	<p>Dirty Dancing Doctor Dolittle Swan Lake The Rocky Horror Show Rock of Ages Strictly Ballroom Rain Man Dreamboys The Bodyguard The King and I Dreamgirls Chicago Young Frankenstein</p>
	And Many More!	



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