

LIGHTING AND BUILDING CONTROL



MASTER CONTROL PANEL
WITH REMOTE CONTROL (IR4-4)



SCENE RECALL PLATE (SR4)



CONTROL WITH OLED



DOLLY SWITCH

Set and control complete room lighting scenes with one touch

HAL Lighting and Building Control

Control your lighting easily from one control plate or remote control with the HAL home automated lighting system available from Focus SB.

- Control plates to match most of Focus SB products
- Simple, easy to use controls (programming knowledge not required)
- Contractor/installer can self-commission on smaller systems
- System settings unaffected by power failure
- System can be upgraded and added to at a later stage (modular concept)
- Larger multi-channel panels available to order
- Multi-channel systems can be housed in a central or multiple locations
- Control plates, panels and cubicles all connected on 1-10V CAT5 data loop
- Control options available for high frequency fluorescent luminaires and LEDs with suitable dimmable drivers
- Momentary 'push to make', rotary and infra-red only options are available to order
- Simple generic infra-red control available (system can also be controlled by intelligent infra-red 'learning' handset i.e. Logitech Harmony)
- System capability – 240 zones – 128 channels per zone – 8 scenes per zone – larger system on application. Can be interfaced with home entertainment systems i.e. Crestron, Opus etc., details on application

Control Plates to match your standard plates

Give an integrated look to your project with control plates designed to your specification, to match your standard plates and in the finish of your choice.



Dolly Switches



Rocker Switches



Bell Push Switches

The HAL system can be operated by 'retractive' rocker or dolly switches and bell pushes, enabling a harmonious installation in listed, period and historic properties. Details on application.

HAL Bespoke

Multi Channel Bespoke Systems

The modular concept of building-up a comprehensive HAL lighting control installation utilising 'off the shelf' individual control panels enables a system to be configured quickly and cost effectively. However, on larger installations or in situations where space is limited Focus SB can supply bespoke multi channel control panels. The lighting control components of our bespoke units are din rail mounted with MCB protection for each pcb, mains supply isolation switch, single or three phase input (as required), exhaust fan and thermostat, panic over-ride link and all internal wiring.

Bespoke panels can be as small as eight channels ranging up to larger individual or multiple enclosures housing twenty, sixty, even eighty or more channels. Priced and quoted upon application.



HAL IR4-4

4 scene master control plate

The HAL IR4-4 eight button master control has four blue LED illuminated scene buttons, located on the left hand side of the control plate, four channel buttons on the right hand side and central infra-red port.

Each of the four right hand channel buttons control one lighting circuit. Simply pressing and holding the respective channel button enables the lighting level to be successively raised and lowered. Release the button when the desired level is achieved. Repeat the procedure on each of the remaining channel buttons. Select one of the four scene buttons to store the chosen settings to, then press and hold the chosen button for a few seconds. The 4 scene buttons will briefly flash on and off for a few seconds, the selected scene button then illuminating constantly indicating successful scene storage. Even though the scene buttons now have stored settings the

user can still raise and lower light levels on the individual channel buttons without affecting stored settings. To turn the system off, simply press the illuminated scene button. An individual channel can be simply turned on or off with a brief push at any time without effecting stored settings. To turn the system on just press one of the scene buttons. The user can also program and select scenes remotely using the optional HAL REM2 infra-red handset.

For systems that require a different combination of buttons please contact our sales office.

Need more control options?
See page 6, HAL IR4 - 12



Master Control Plate

Technical Specifications

| | |
|----------------------------|--|
| Buttons | 4 x blue illuminated scene recall/store 4 x channel/circuit |
| Menu Function | Scene selection, scene storage |
| Operating Temp | 0-40°C ambient |
| Module | 50mm x 50mm x 26mm |
| Dimensions | |
| Plate Dimensions (typical) | 86mm x 86mm x 30mm |
| Back Box | Standard UK 35mm deep single gang |
| Infra-red | Receiver mounted to centre of plate |

With smaller systems (i.e. 1, 2 or 3 channels) buttons can be de-populated off control plate – ask Sales office for details.

Price

HAL IR4-4

£195.00

All prices exclude VAT

Scene Recall Control Plate

Technical Specifications

| | |
|----------------------------|-----------------------------------|
| Buttons | 4 x blue illuminated scene recall |
| Menu Function | Scene selection, off |
| Operating Temp | 0-40°C ambient |
| Module | 50mm x 50mm x 26mm |
| Dimensions | |
| Plate Dimensions (typical) | 86mm x 86mm x 30mm |
| Back Box | Standard UK 35mm deep single gang |
| Infra-red | No |

Price

HAL SR-4

£135.00

All prices exclude VAT

HAL SR-4

4 scene recall control plate



The HAL SR - 4 scene recall control simply recalls scenes that have previously been programmed and stored using one of the HAL master control plates or HAL REM2 infra-red remote handset.

The HAL SR - 4 is an ideal addition when the user requires control of their HAL system from multiple points in a room or where system control is required adjacent to several access points into a room and on larger more comprehensive systems.

The user just presses the chosen scene button on the HAL SR - 4 to activate the scene. Pressing the illuminated scene button again turns the system off.

The HAL SR - 4 does not have an infra-red receiver or programming facility and would normally be used in addition to HAL master controls.

Need more control options?
See page 6, HAL IR4 - 12



HAL REM2

Infra-red remote handset

The HAL REM2 infra-red handset enables the user to programme, store and recall lighting settings that have previously been stored into the HALsystem. The HAL REM2 has four scene buttons and a keypad for selection of up to 16 channels. There is an additional system off button that turns off all lighting channels. To operate the HAL REM2 infra-red handset, simply point it in the direction of the master control plate in the controlled room and press chosen function button.



As with the HAL master scene control plate, the user is able to set scenes or raise and lower individual lighting channels if desired without affecting the stored settings. The HAL REM2 infra-red handset allows the user the same level of control as experienced from HAL Master Control plates.

New HAL Net Box

Control your HAL system from your iPod Touch, iPhone or iPad



The HAL Net Box is a network interface to control your HAL lighting control system from an iPod Touch, iPhone or iPad over your wireless home network. The Net Box app allows control, configuration and setting of:

- Scenes
- Circuits
- Time based actions
- GPS triggered welcome home scenes
- Room scene and circuit names

Location monitoring will work in the background when enabled. The app can be downloaded direct to your Apple device from an iTunes account.

HAL NET BOX requires specialist setting up, programming and interfacing with customers iPad or iPhone at point of system programming and commissioning.

Remote Control

Technical Specifications

| | |
|----------------|---|
| Buttons | 4 x scene recall, numeric keypad 8 x channel/circuit 1 x system off, 1 x shift facility 4 x spare (future use) |
| Menu Function | Scene selection, scene store, channel select, raise and lower channel levels, channel 9-16 shift |
| Operating Temp | 0-40°C ambient |
| Module | 145mm x 40mm x 12mm |
| Dimensions | |
| Infra-red | Enabled |

Price
HAL REM2 **£75.00**
 All prices exclude VAT

Net Box

Technical Specifications

| | |
|----------------|---------------------------|
| Supply | 5v power adaptor supplied |
| Outputs | RS232 |
| Cable Entries | 3 x 20mm 1 x 16mm glands |
| Control Input | Hy-Net serial data |
| DMX 512 | Available option |
| Indicators | Power LEDs |
| Operating Temp | 0-30°C ambient |
| Enclosure | Plastic Solo DSI |
| Net Connection | RJ45 |

Price
HAL Net Box **£395.00**
 All prices exclude VAT

Requires on-site commissioning, price on application.

Master Control Plate

Technical Specifications

| | |
|------------------|---|
| Buttons | 4 x blue illuminated scene recall/store 12 x channel/circuit |
| Menu Function | Scene selection, scene storage |
| Operating Temp | 0-40°C ambient |
| Module | 2 x 50mm x 50mm x 26mm |
| Dimensions | |
| Plate Dimensions | 146mm x 86mm |
| Back Box | Standard UK 35mm deep two gang |
| Infra-red | Receiver mounted to centre |
| centre | left of plate |

With smaller systems (i.e. below 8 or 12 channels) buttons can be de-populated off control plate – ask Sales office for details.

Price

HAL IR4 - 12 **£390.00**

All prices exclude VAT

HAL IR4 - 12

4 scene, 12 channel master control plate



The HAL IR4 - 12 sixteen button master control has four blue Led illuminated scene buttons located on the left hand side of the control plate and twelve channel (lighting circuit) buttons in three rows towards the right hand side. Each of the twelve channel buttons controls one lighting circuit.

Simply pressing and holding the respective channel button enables the lighting level to be raised and lowered. Release the button when the desired level is achieved. Repeat the procedure on each of the remaining channel buttons. Then select one of the four scene button to store the chosen settings to, then press and hold the chosen button for a few seconds. The 4 scene buttons will briefly flash on and off for a few seconds, the selected scene button then illuminating constantly indicating successful scene storage. Repeat procedure for remaining scene buttons. Even though the scenes have now been stored the user can still raise and lower individual lighting channels if desired without affecting the stored settings. To turn the system off, simply press the illuminated scene button. To turn the system on just press the one of the scene buttons. The user can also program and select scenes remotely using the HAL REM2 infra-red handset.

HAL control plate scene and button configuration can be changed to suit specific applications. For example, the 16 button control plate above could provide 8 scenes and 8 channels or 6 scenes and 10 channels. Spare buttons can be removed if required at point of manufacture.



OLED Control Plate

Technical Specifications

| | |
|----------------------------|--|
| Resolution | 128 x 64 Pixels |
| Display | Organic LED |
| Buttons | 4 x scene recall |
| Menu Function | Scene text input, icon selection, OLED display and button brightness, i.r enable, e.scene, plate lock-out, etc |
| Proximity Detection | Passive |
| Operating Temp | 0-40°C ambient |
| Plate Dimensions (typical) | 86mm x 86mm x 30mm |
| Back Box | Standard UK 35mm deep single gang |
| Display Size | 36mm high x 22mm wide |
| Display Orientation | 0, 90, 180 degrees |
| Display Colour | Blue |
| Icons | 40 Predefined Icons |
| Infra-red OLED | Discrete receiver within OLED |
| Compatibility | HAL 4-400/150/LT, HAL 4 - LED/HFDS, HAL DR - 4DS All HAL master and scene recall controls |

Price

HAL IR4 - OLED **£315.00**

All prices exclude VAT

HAL IR4 - OLED

OLED control plate

The HAL IR4 - OLED master control is the first of a new generation of HAL control plates that use the latest organic LED display technology. Designed to fit in a standard UK single gang back box.



The blue display has a far superior contrast ratio and viewing angle than the traditional LCD modules currently used in small displays. This results in a display screen that is crystal clear and can be read from virtually any angle. The OLED screen is movement activated within a range of several metres.

Each of the four illuminated scene buttons has an associated icon which can be chosen via a menu selection of over 40 different pre-defined styles. Programmable descriptive text for each scene is also chosen from the same push button menu. When a scene recall button is pressed the selected icon is initially displayed at twice its normal size for confirmation of scene selection. A hidden infra-red receiver within the OLED screen enables the user to program scenes in to the HAL system and to select scenes if desired using the HAL REM2 infra-red handset or via an additional HAL IR4-4 master control within same room.

Please order HAL REM2. HAL IR4-8 OLED also available, see rear cover and main price list.



Control Panel

Technical Specifications

| | |
|-------------------|----------------------------------|
| Supply | 230vac 50/60Hz 10amp |
| Outputs | 4 x 400w |
| Outputs Fused | Busmann CFF 5m |
| Surge | 400amp 20msec |
| Phase Control | Mosfet |
| Turn On | Soft Start Lamp Current |
| EMC | Iron Powder Core Chokes |
| Cable Entries | 4 x 20mm, 1 x 16mm |
| Glands | |
| Control Plate | CAT5 Screened (4 x Twisted Pair) |
| Wiring | |
| Low Voltage Out | 5vdc 100ma |
| Incoming MCB | Available option |
| Control Input | HAL Serial Data |
| Internal Controls | 4 x Zone-Chan DIP Switch |
| Indicators | Power & Diagnostic LEDs |
| Operating Temp | 0 - 40 °C Ambient |
| Enclosure | White Powder Coated Steel |
| Dimensions | 220 x 160 x 70 mm |

Suitable Loads

- Mains, low voltage tungsten/incandescent Compatible and dimmable mains leading/trailing edge LED lamps, luminaires and LED strip lighting
- Leading/trailing edge electronic transformers and drivers
- Suitable wirewound/toroidal transformers

Multi-channel Bespoke control panel options available to order. HAL Control Panel options available for DALI, DSI and DMX luminaires - contact sales office.

Prices

HAL 4-400-150/LT **£495.00**

All prices exclude VAT

HAL systems with more than 8 channels require on-site commissioning and programming of control panels and plates. Price on application. Owing to constant changes and improvements in lamp technology (especially LED lighting) Focus SB are not able to guarantee compatibility of lamps and luminaires with HAL lighting control products. Please follow lamp and luminaire manufacturers guidance for use with dimming systems.

HAL 4-400/150/LT

4 channel 40 to 400 watt (150 watt LED) leading/trailing edge dimming panel



The HAL 4 - 400-150/LT is a four channel dimming pack suitable for dimming and scene setting of four 40 to 400 watt incandescent/low voltage lamps loads (with suitable transformers) or 150 watt maximum load of mains dimmable LED lamps per channel. All four outputs internally switchable for use with leading edge or trailing edge lamps/luminaires. It is important for customer to check suitability of installed lamps before purchase and subsequent use with lighting control systems. The HAL 4-400/150/LT is particularly suitable for 'new generation 'retro' styled decorative tungsten filament lamps. New Mosfet controlled circuitry can help maximise filament life.

When used in conjunction with control plates from the Focus SB range, a scene based lighting control system with infra-red capability can simply be configured to suit installations both large and small, commercial or domestic. The control plates are connected to the dimmer panel using extra low voltage CAT5/6 type cable. Data communication is supported by the HAL protocol, which is a proven robust interface with an integral self monitoring facility.

System capability - 240 zones - 128 channels per zone - 8 scenes per zone - larger systems on application.



HAL 4-LED/HFDS

4 channel 1-10v LED and HF fluorescent dimmer panel



The HAL 4 - LED/HFDS is a 4 channel, 1-10volt, analogue output dimmer, designed to drive (1-10v) dimmable fluorescent lamp ballasts and LEDs with suitable 1-10v dimmable drivers. Can also be used to 'switch' non dimmable loads as part of a scene.

Each channel has it's own power high inrush relay rated at 10amps to provide switched mains power to the ballasts (or to a contactor where there are a large number of ballasts). When used in conjunction with control plates from the Focus SB range, a scene based

lighting control system with infra-red capability can be simply configured to suit installations both large and small, commercial or domestic. The control plates are connected to the dimmer panel using low voltage CAT5/6 type cable. Data communication is supported by the HAL protocol, which is a proven robust interface with an integral self monitoring facility.

System capability – 240 zones – 128 channels per zone – 8 scenes per zone – larger systems on application.

Control Panel

Technical Specifications

| | |
|-------------------|---------------------------|
| Supply | 230vac 50/60Hz |
| Outputs | 4 x 0 - 10vdc |
| Relays | 4 x 10amp 100a inrush |
| EMC | R-C Suppression |
| Dimming Control | 0 - 10v Analogue |
| Cable Entries | 4 x 20mm, 1 x 16mm |
| Glands | |
| Low Voltage Out | 5vdc 100ma |
| DMX 512 | Available option |
| Control Input | HAL Serial Data |
| Internal Controls | 4 x Zone-Chan DIP Switch |
| Indicators | Power & Diagnostic LEDs |
| Operating Temp | 0 - 40 °C Ambient |
| Enclosure | White Powder Coated Steel |
| Dimensions | 220 x 160 x 70 mm |

Suitable Loads

High Frequency Dimmable 0-10v Fluorescent Ballasts
 LEDs with suitable 1 - 10V Dimmable Drivers

Multi-channel Bespoke control panel options available to order. HAL Control Panel options available for DALI, DSI and DMX luminaires - contact sales office.

Price

HAL 4-LED/HFDS **£495.00**

All prices exclude VAT



HAL systems with more than 8 channels require on-site commissioning and programming of control panels and plates. Price on application.

Owing to constant changes and improvements in lamp technology (especially LED lighting) Focus SB are not able to guarantee compatibility of lamps and luminaires with HAL lighting control products. Please follow lamp and luminaire manufacturers guidance for use with dimming systems.

Control Panel

Technical Specifications

| | |
|----------------------|----------------------------------|
| Supply | 230vac 50/60Hz |
| Relays | 4 x 10amp |
| Protection | Voltage Transient |
| Suppression | |
| Surge | 100a high inrush relays |
| Phase Control | Leading Edge Triac |
| Turn On | Soft Start Lamp Current |
| EMC | RC suppression |
| Cable Entries | 4 x 20mm, 1 x 16mm |
| Glands | |
| Control Plate Wiring | CAT5 Screened (4 x Twisted Pair) |
| Low Voltage Out | 5vdc 100ma |
| DMX 512 | Available option |
| Panic Input | Forces All Channels to Full |
| Control Input | HAL Serial Data |
| Internal Controls | 4 x Zone-Chan DIP Switch |
| Indicators | Power & Diagnostic LEDs |
| Operating Temp | 0 - 40 °C Ambient |
| Enclosure | White Powder Coated Steel |
| Dimensions | 220 x 160 x 70 mm |

Suitable Loads

| |
|--|
| Electronic blinds, curtains, shutters, gates |
| Television, projection screens |
| Non-dimmable LED transformer |
| Non-dimmable lighting loads (i.e. exterior floodlights, garden lighting) |

Multi-channel Bespoke control panel options available to order. HAL Control Panel options available for DALI, DSI and DMX luminaires - contact sales office.

HAL DR-4DS

4 channel universal digital relay panel



The HAL DR - 4DS is a four channel universal digital relay module designed to control ancillary circuits as part of lighting scenes. These controlled power circuits can be electronic blinds, curtains, shutters, gates, roof lights and television projector screens. Non dimmable lighting loads like exterior floodlighting and garden lighting can also be controlled.

Each channel has its own high inrush power rated relay to provide switched mains power to the lighting ballast or to a contactor where there are a large number of ballasts installed. The module is also suitable for driving

switchable (non dimming) LED transformers and drivers. When used in conjunction with control plates from the Focus SB range, a scene based lighting control system with infra-red capability can be simply configured to suit installations both large and small, commercial or domestic. The control plates are connected to the dimmer panel using low voltage CAT5/6 type cable. Data communication is supported by the HAL protocol, which is a proven robust interface with an integral self monitoring facility.

System capability – 240 zones – 128 channels per zone – 8 scenes per zone – larger systems on application.

Price

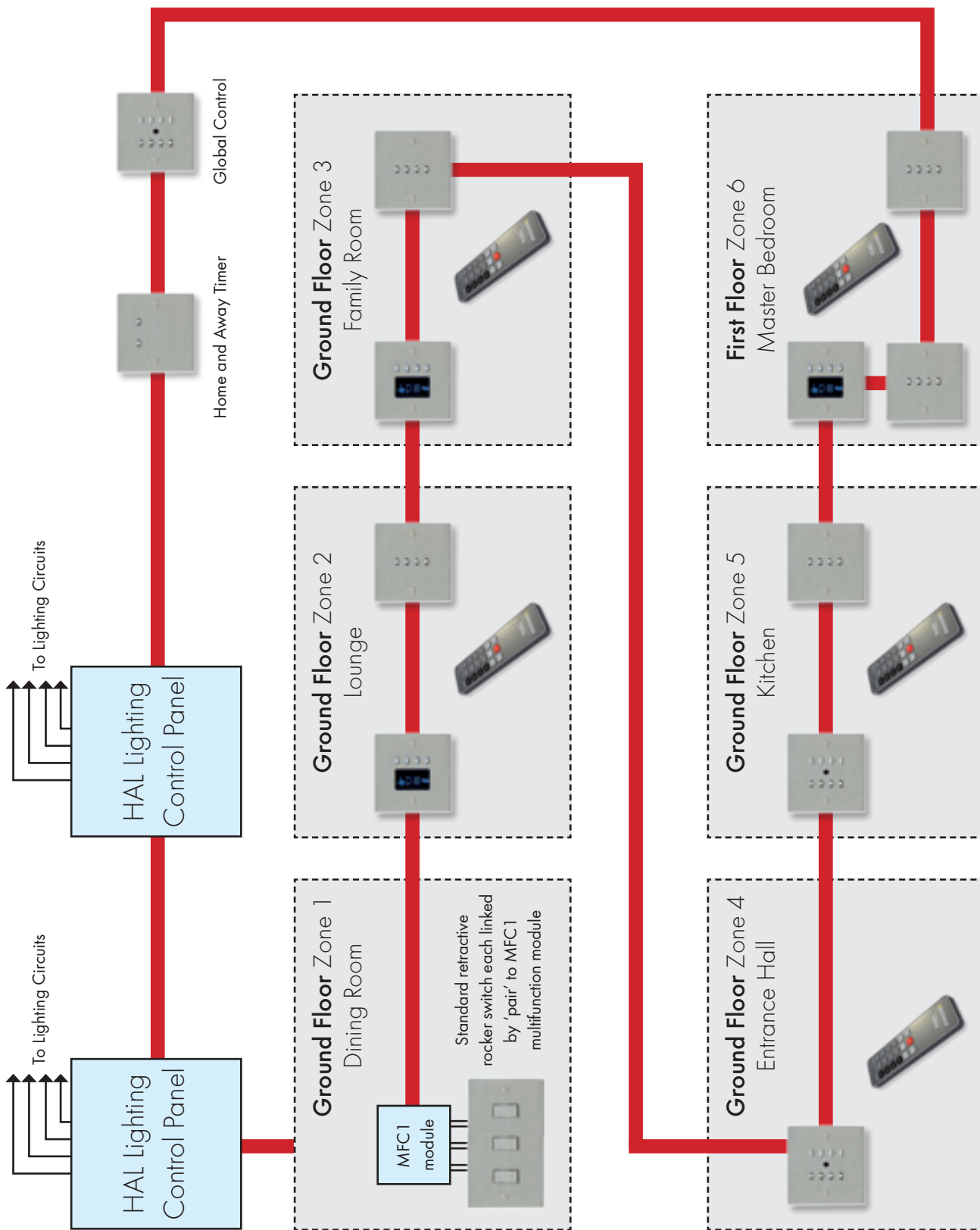
HAL DR-4DS **£425.00**

4 channel relay module
All prices exclude VAT

HAL systems with more than 8 channels require on-site commissioning and programming of control panels and plates. Price on application.

Owing to constant changes and improvements in lamp technology (especially LED lighting) Focus SB are not able to guarantee compatibility of lamps and luminaires with HAL lighting control products. Please follow lamp and luminaire manufacturers guidance for use with dimming systems.





| Product | HAL Product Description | Trade Price (ex VAT) |
|------------------|---|----------------------|
| HAL IR4-OLED * | 4 Button Master Control Plate with high definition multi-icon blue OLED screen. 4 scene recall buttons. Programmable by HAL REM2 infra-red handset (optional extra) or HAL Master Control Plate. Discrete infra-red port. Screen dims. 22mm wide x 36mm high. Typical plate dimensions 86 x 86mm. | £315.00 |
| HAL IR4-8 OLED * | 12 Button Master OLED Control Plate with high definition multi-icon blue OLED screen. 4 scene recall buttons and 8 channel/circuit dimming buttons. Discrete infra-red port. Screen dims 22mm wide x 36mm high. Typical plate dimensions 146 x 86mm. | £495.00 |
| HAL IR4-4 * | 8 Button Master Control Plate with 4 blue LED illuminated scene recall/memory buttons and 4 channel/circuit dimming buttons, infra-red port, typical plate dimensions 86 x 86mm. | £195.00 |
| HAL SR-4 * | 4 Button Scene Recall Plate with 4 blue LED illuminated scene recall buttons, no infra-red port, typical plate dimensions 86 x 86mm. | £135.00 |
| HAL IR4-12 * | 16 Button Master Control Plate with 4 blue LED illuminated scene recall/memory buttons and 12 no. channel/circuit dimming buttons, infra-red port, typical plate dimensions 146 x 86mm. | £390.00 |
| HAL REM2 | Infra-red remote handset with numeric keypad for control of up to 16 channels with 4 scene recall buttons plus 4 auxiliary scenes, master off button. Batteries supplied. | £75.00 |
| HAL 4-400/150/LT | Four channel dimming pack suitable for dimming and scene setting of four 40 to 400 watt mains incandescent/low voltage lamp loads (with suitable transformers) or 150 watt maximum load of mains dimmable LED lamps per channel. All four outputs internally switchable for use with leading edge or trailing edge lamps/luminaires. It is important for customer to check suitability of installed lamps before purchase and subsequent use with lighting control systems. | £495.00 |
| HAL 4-LED/HFDS | Four Channel Dimming Pack suitable for dimming and scene setting of four 0-10 volt high frequency fluorescent ballast circuits. Power relays each rated at 10amps providing switched mains power to dimmable ballasts (or contactor if using larger numbers of ballasts). Also for use with low voltage LED luminaires with suitable dimmable drivers. | £495.00 |
| HAL DR-4DS | 4 Channel Digital Relay Pack, for controlling non dimmable lighting or power circuits as part of a scene (i.e. electronic blinds, curtains, blinds, shutters, gates, projector screens, heating and ventilation controls etc) with four 10amp rated volt free n/o or n/c contact relays. | £425.00 |
| HAL 4-DALI/DSI | Four Channel Dimming Pack. For dimming and scene setting in 'broadcast mode' 4 no. DALI or DSI high frequency lamp loads. | £495.00 |
| HAL HT | Home and Away Timer Control Plate, 2 LED illuminated buttons – 1 for scene event recording and 1 for random scene event playback, typical plate dimensions 86 x 86mm. | £195.00 |
| HAL MFC1 | Multi-Function module, mounted adjacent to switch position or at HAL control panel, programmable for momentary, toggle, global and master on/off, timer, sequencer, holiday recall, non HAL PIR interface. Also to enable HAL system use with retractive and push to make switches. Three analogue inputs. Dimensions 50mm x 50mm x 26mm. | £125.00 |
| HAL PIR ** | Multi-functional sensor, with absence/presence detection. Programmable by HAL REM Infra Red handset. Ceiling mounted in 35mm MR11 or 50mm MR16 downlighter housing (not supplied), powered by Cat5/6 data connection. | £125.00 |
| HAL NET BOX | Network Interface Module for control of HAL lighting system from iPod Touch, iPhone or iPad over compatible wireless home network. 'App' is downloaded direct to Apple device from an iTunes account. Allows control, configuration and setting of scenes, circuits, time based actions, GPS triggered welcome home scenes etc. Requires specialist installation at time of HAL system programming and on-site commissioning. c/w mains power supply. Dimensions 40mm x 45mm x 185mm | £395.00 |
| HAL MIM** | Multi-function module. For use with retractive and 'push to make' switches. Converts analogue input from conventional switches to digital coded output for use with HAL. Controlled switch operates as scene recall unit. c/w IR sensor and flying leads for mounting behind switch front plate in extra deep back box. Programmable for master, recall, momentary and toggle control, global and master on/off. Use optional HAL REM2 for programming and master scene control. Dimensions, 15mm x 50mm x 110mm approx. plus flying lead with IR sensor. | £125.00 |
| HAL SOLO RL1** | Single channel relay module (rated at 6 amps) for controlling/switching power loads (non dimmable lighting, electronic blinds, curtains, shutters, gates, projector screens etc. Dimensions 40mm x 45mm x 185mm. | £195.00 |

| | | |
|----------------------------|---|---------|
| HAL SOLO DSI** | Single channel dimming module suitable for dimming and scene setting of one 40 to 400 watt incandescent/low voltage lamps load (with suitable transformer) or 150 watt maximum load of mains dimmable LED lamp. Output internally switchable for use with leading edge or trailing edge lamps/luminaires. Dimensions 40mm x 45mm x 185mm. | £195.00 |
| HAL SOLO 1-10V ** | Single channel dimming module suitable for dimming and scene setting of one circuit/channel of suitable 1-10V high frequency lamps/luminaires. Dimensions 40mm x 45mm x 185mm. | £195.00 |
| HAL SOLO LEDx4** | 4 channel driver/dimmer module suitable for use with constant voltage/common anode white dimmable LED strip lighting. Maximum load 25 watts per channel. Requires specialist programming and commissioning as part of a complete HAL system. Dimensions 40mm x 45mm - 185mm | £195.00 |
| HAL SOLO RGB ** | Multi-channel module for use with suitable red/green/blue colour changing leds. Requires specialist programming and commissioning as part of a complete HAL system. Dimensions 40mm x 45mm x 185mm. | £195.00 |
| HAL SOLO DALI/DSI** | Single channel module for use with DALI/DSI enabled luminaires. Operates in 'broadcast' mode. Dimensions 40mm x 45mm x 185mm. | £195.00 |

*Control plate prices shown above are applicable for most standard Focus SB plate styles and finishes to match our other accessory products. HAL product code should be suffixed with plate code - i.e HAL IR4-4 APS (Ambassador Polished Stainless) HAL SR4 HSS (Horizon Satin Stainless). Please contact sales office for further advice.

** HAL SOLO modules are suitable for use in single channel applications. They will require a suitable master control plate (i.e HAL IR4-1). HAL SOLO modules can also be used in addition to other HAL control panels (i.e HAL 4-400/150/LT) when additional circuits of a different type and not controllable by the main panel are required

Hal systems larger than 4 channels as a minimum require pre-programming before dispatch at additional cost. Systems with 8 channels and larger (and with HAL NET BOX) will require on site specialist programming and commissioning at additional cost (please contact sales office for further details).

Owing to constant changes and improvements in lamp technology (especially LED lighting) Focus SB are not able to guarantee compatibility of lamps and luminaires with HAL lighting control products. Please follow lamp and luminaire manufacturers guidance for use with dimming systems.

Please note that HAL Bespoke Multi Channel Systems are quoted and priced on application, please contact sales office.

Important Notice

It is the customer and installers responsibility to ensure that all lamps, luminaires, LED's and LED 'strip' lighting products to be controlled by the HAL system are compatible and suitable for dimming and lighting control. Focus SB can not be held responsible for damage caused to the customers lighting products or the HAL lighting control and its system components by unsuitable products. Focus SB can arrange testing of customers lighting products for suitability on request. This may be chargeable.

When installing individual HAL lighting control panels and modules all 'incoming' circuits must be protected by a 10 amp type 'B' MCB. All individual 'outgoing' circuits should also be protected by a 2 amp (max.) type 'B' MCB. Failure to do this may invalidate any applicable Focus SB warranty covering HAL control panels, ancillary equipment and lighting products. All 'bespoke' HAL panels are supplied with full circuit projection



HAL IR4-8 OLED

Bespoke HAL control plates available

For further information about
HAL Lighting Control products
please visit our website

A large range of other plate
designs and finishes are
available to suit any interior style

www.focus-sb.co.uk

