



# HAL

Lighting and Building Control



**FOCUS** *Sb*

**ELECTRICAL ACCESSORIES**

# HAL Lighting and Building Control

Control your lighting easily and simply 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 (software and 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 cubicle 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

## Bespoke 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 comprehensive system to be built up quickly and cost effectively. However, on larger installations or in situations where space for control panels may be 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, all required terminals, mains supply isolation switch, single or three phase input (as required), exhaust fan and thermostat when needed, panic over-ride link and all internal wiring.

These 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. HAL bespoke multi channel panels are priced and quoted upon application.



# HAL 4 - 600DS

4 channel x 600 watt leading edge dimmer panel



The HAL 4 - 600DS is a 4 channel, triac controlled, leading edge system dimming panel, designed to drive incandescent lamp loads up to 600 watts per channel. It is also suitable for controlling mains voltage, compatible and dimmable LEDs. 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 type cable.

Data communication is supported by the HAL protocol, which is a proven robust interface with an integral self monitoring facility. Also available HAL 4 - 600DS Fan - specification as HAL 4 - 600DS but with relay unit allocated to one channel for bathroom/toilet/duct fan operation.

System capability - 240 zones -  
128 channels per zone - 8 scenes per zone - larger systems on application. Can be interfaced with home entertainment systems (i.e. Crestron, Opus etc.) details on application.

## Control Panel

### Technical Specifications

Supply	230vac 50/60Hz 10amp
Outputs	4 x 2.5amp (4 x 600W)
Outputs Fused	Bussmann CFF 5m
Surge	400amp 20msec
Phase Control	Leading Edge Triac
Turn On	Soft Start Lamp Current
EMC	Iron Powder Core Chokes
Cable Entries	4 x 20mm, 1 x 16mm Glands
Control Plate Wiring	CAT5 Screened (4 x Twisted Pair)
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
Suitable 240 volt dimmable LED luminaires
Leading Edge Electronic Transformers
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 - 600DS £455.00

Also available:

HAL 4 - 600DS Fan £495.00

HAL 2 - 1200DS  
2 x 1200 Watt control panel £455.00

HAL 1 - 5000DS  
1 x 5000 Watt control panel £455.00

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
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 **£455.00**

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 - 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 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. Can be interfaced with home entertainment systems (i.e. Crestron, Opus etc.) details on application.



# 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.

System capability - 240 zones -  
128 channels per zone - 8 scenes per zone  
- larger systems on application. Can be interfaced with home entertainment systems (i.e. Crestron, Opus etc.) details on application.

## 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.*

### Price

HAL DR - 4DS

4 channel relay module

£395.00

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.*



# 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 Temperature	0-40°C ambient
Plate Dimensions	86mm x 86mm x 30mm (typical)
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	Discrete receiver within OLED
Compatibility	HAL 4 - 600DS, 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. Compatible with our 'DS' series control panels and 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. Please order HAL REM2. HAL IR4-8 OLED also available, see rear cover and main price list.



# Master Control Plate

## HAL IR4 - 4

4 scene master control plate



### Technical Specifications

Buttons	4 x blue illuminated scene recall/store 4 x channel/circuit
Menu Function	Scene selection, scene storage
Operating Temperature	0-40°C ambient
Module Dimensions	50mm x 50mm x 26mm
Plate Dimensions	86mm x 86mm x 30mm (typical)
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

£185.00

All prices exclude VAT

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 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.

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.





# 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.

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.

# Scene Recall Control Plate

## Technical Specifications

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

### Price

HAL SR - 4

£135.00

All prices exclude VAT



# Master Control Plate

## Technical Specifications

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

£370.00

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 successively 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. For systems where the user may require a different combination of buttons please contact our sales office.

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.



# 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 Temperature	0-40°C ambient
Module Dimensions	145mm x 40mm x 12mm
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
Network Connection	RJ45

### Price

HAL Net Box **£395.00**

All prices exclude VAT

Requires on-site commissioning, price on application.

# 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 HAL system. 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.

Android application coming soon.

# HAL Price List

Product	HAL Product Description	Trade Price (Plus 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. Discrete infra-red port. For use with DS series control panels. 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. For use with DS series control panels. 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.	£185.00
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.	£370.00
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 - 600DS	Four Channel Dimming Pack suitable for dimming and scene setting of four 40 to 600 watt incandescent/low voltage lamp loads (with suitable transformers) and suitable, mains dimmable LED's. Also available HAL 4-600 DS Fan - specification as HAL 4-600 DS but with relay unit allocated to one channel for bathroom/toilet/duct fan operation - order HAL 4-600 DS Fan @ £495.00.	£455.00
HAL 2 - 1200DS	Two Channel Dimming Pack suitable for scene setting and remote control of two 40 to 1200 watt channels/circuits of incandescent/low voltage lighting loads (with suitable transformers).	£455.00
HAL 1 - 5000DS	One Channel Dimming pack suitable for scene setting and remote control of one 40 to 5000 watt channel/circuitry of incandescent/low voltage lighting loads (with suitable transformers).	£455.00
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 and cold cathode lighting with compatible high frequency control gear.	£455.00
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.	£395.00
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.	£185.00
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, PIR interface. Also to enable HAL system use with retractable rocker and dolly switches and 'push to make' switches.	£110.00
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.	£395.00

\*Control plates prices shown above are for Horizon Range finishes. Product code is suffixed with plate code, i.e. HAL IR4 - 4 HSS (Horizon Satin Stainless) - other plate styles and finishes are available (please contact sales office for availability and prices).

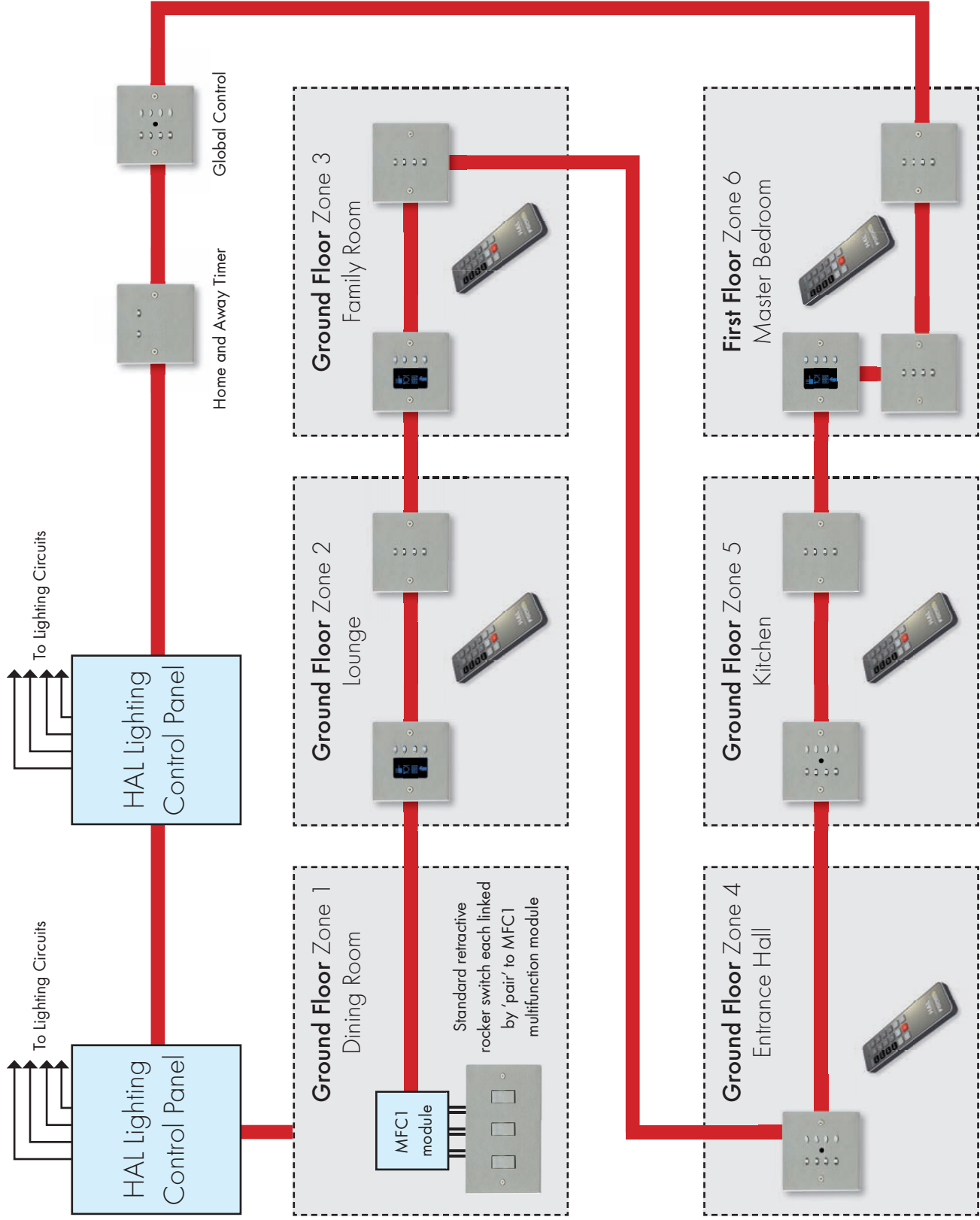


Please note that HAL Bespoke Multi Channel Systems are quoted and priced on application, please contact sales office.

On site commissioning and programming of HAL systems are priced 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.

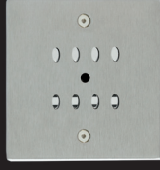
# Typical Cat 5 control cabling schematic for single and multiple control panels



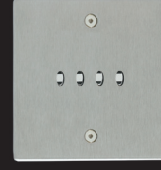
Key



HAL IR4 - OLED Master Control



HAL IR4 - 4 Master Control



HAL SR - 4 Slave Recall



HAL REM2 Infra-red Remote



Cat5 e Data Cable

For further information about HAL Lighting Control products please visit our website [www.focus-sb.co.uk](http://www.focus-sb.co.uk)

Click on Our Products, then click on HAL and finally click on Brochure download.

Focus SB Questions & Answers Forum, Commissioning information, downloadable User, Installer and additional product information are also available on line.

Other plate designs and finishes are available to suit your interior style, visit [www.focus-sb.co.uk](http://www.focus-sb.co.uk) to view our full range





## HAL IR4 - 8 OLED

Bespoke HAL control plates available



No long lead times | No minimum order | Complete bespoke service  
Free delivery to mainland UK | Find us on Facebook and Twitter @FocusSB

**Tel: +44 (0)1424 858060** [www.focus-sb.co.uk](http://www.focus-sb.co.uk)

Napier Road Castleham Industrial Estate St Leonards-on-Sea East Sussex TN38 9NY

**FOCUS***Sb*  
ELECTRICAL ACCESSORIES