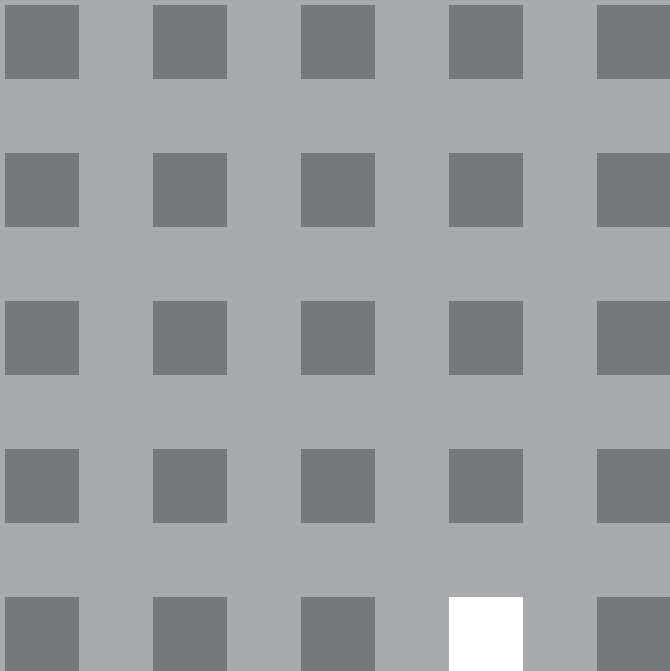# hager

17th Edition Solutions

new

17th Edition Consumer Units
Downlighter Junction Box
Maintenance Free Junction
Boxes

August 2008

The introduction of the '17ᵗʰ Edition of the Wiring Regulations' on the 1ˢᵗ July 2008 has major implications for all Electrical Contractors, Designers and Consultants.

The products included in our '17ᵗʰ Edition Solutions' brochure will help you to comply with this new set of regulations.
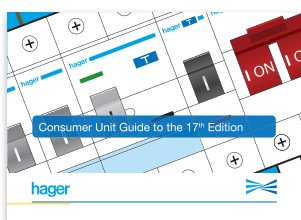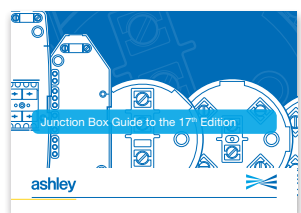
Consumer Unit Guide to the 17ᵗʰ Edition

The free consumer unit guide to the 17ᵗʰ Edition outlines the new requirements for domestic installations and suggests possible solutions that the contractor should consider.

The guide points out that all of the circuits should not be connected to a single RCD, since this could lead to the loss of supply for the entire installation if there is a fault on one circuit. Protection for smoke detector circuits also need special consideration.

If you would like to find out more request your free copy online from www.hager.co.uk

Junction Box Guide to the 17ᵗʰ Edition

The free junction box guide to the 17ᵗʰ Edition helps you to understand how to meet the needs of the 17ᵗʰ Edition Wiring Regulations regarding the connection of conductors for both lighting and final power circuits.

Unfortunately in many instances the traditional circular junction boxes may not allow compliance with the 17ᵗʰ Edition. Hager has developed two new types of Junction Boxes to specifically meet needs that have not been addressed to date.

To learn more about the new new junction box range and the implications of the 17ᵗʰ Edition on junction boxes request your free copy online from www.hager.co.uk

Contents

Consumer Units

The new consumer unit range has been designed in partnership with contractors and homeowners, providing benefits to meet today's protection, control and electrical distribution needs.

From the outset, Hager worked closely with contractors and housing developers to provide an aesthetic design that would fit into both new and existing properties, whilst retaining a high level of protection for the equipment, the installer and for the user.
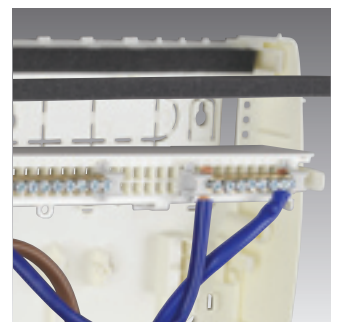
The consumer unit from Hager is also suitable for small commercial installations such as shops, offices and hotels, where aesthetics are important.
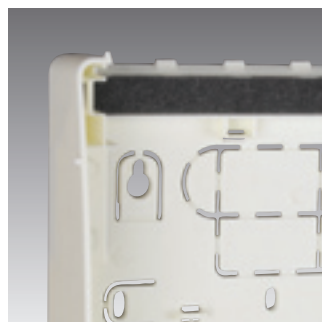
Best in class cable space top side and back.
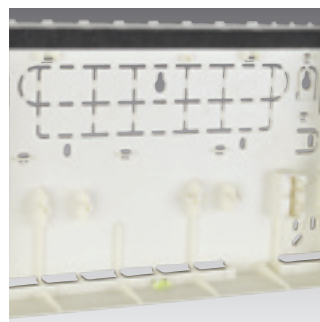
Rear cutouts are optimised for size and position.

Top wall removes for easy cable access and reseals to IP4X using the two foam strips provided.

Hager Consumer Units

Insulated and metal types feature downward opening doors, with the insulated type available in either plain or transparent door variants on many of the most popular unit sizes. Optionally, a key operated lock can be fitted to secure the lid over the devices to prevent tampering.

All variants are constructed from just six enclosure sizes. The smallest unit will provide a single way consumer unit whilst the largest will house 22 modules to provide a 20-way consumer unit.
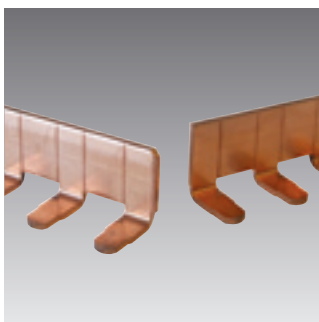
Snap-able busbar allows quick configuration of installation.
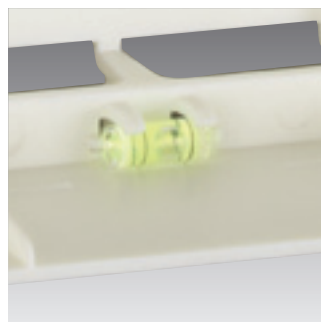
Integrated spirit level.
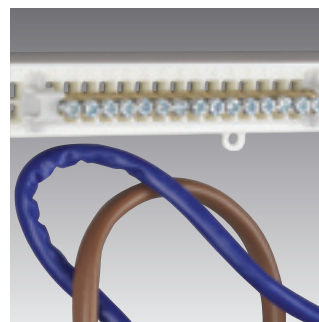
Terminal bars are top mounted for easy cable dressing, fully rated to 100A.

The incoming meter tail kit allows you to save time when installing 25mm^2 & 35mm^2 meter tails by simply connecting to the direct terminal block.

Switch Disconnector Incomer
- Insulated

VC206

Switch disconnector (isolator) rating	Total ways	Switch dis. cont. ways	Enclosure size	Cat ref. Insulated plain door	Cat ref. Insulated glazed door
63A	4	4	3	**VC204**	**VC204G**
63A	6	6	3	**VC206**	**VC206G**
100A	4	4	3	**VC104**	**VC104G**
100A	6	6	3	**VC106**	**VC106G**
100A	8	8	4	**VC108**	**VC108G**
100A	10	10	4	**VC110**	**VC110G**
100A	12	12	5	**VC112**	**VC112G**
100A	14	14	5	**VC114**	**VC114G**
100A	16	16	6	**VC116**	**VC116G**
100A	20	20	6	**VC120**	**VC120G**

* compliant with the 17th Edition Wiring Regulations when ADN RCBO's are installed

Switch Disconnector Incomer
- Metal

VH106G

Switch disconnector (isolator) rating	Total ways	Switch dis. cont. ways	Enclosure size	Cat ref. Metal plain door	Cat ref. Metal glazed door
63A	1	1	**	**VH201**	
63A	2	2	**	**VH202**	
100A	4	4	3	**VH104**	**VH104G**
100A	6	6	3	**VH106**	**VH106G**
100A	8	8	4	**VH108**	**VH108G**
100A	10	10	4	**VH110**	**VH110G**
100A	14	14	5	**VH114**	**VH114G**
100A	16	16	6	**VH116**	**VH116G**
100A	20	20	6	**VH120**	**VH120G**

* compliant with the 17th Edition Wiring Regulations when ADN RCBO's are installed
** see non standard enclosures on page 11

Miniature Circuit Breaker (MCB)
6kA Type B Single Pole

Cat Ref.	Pack Qty	Rating (In)	Width in 17.5mm ▮
MTN106	12	6A	1
MTN110	12	10A	1
MTN116	12	16A	1
MTN120	12	20A	1
MTN125	12	25A	1
MTN132	12	32A	1
MTN140	12	40A	1
MTN150	12	50A	1
MTN163	12	63A	1

Residual Current Operated Circuit Breaker (RCBO)
30mA Type B Single Pole

Cat Ref.	Pack Qty	Rating (In)	Width in 17.5mm ▮
ADN106	12	6A	1
ADN110	12	10A	1
ADN116	12	16A	1
ADN120	12	20A	1
ADN132	12	32A	1
ADN140	12	40A	1

Hager 17th Edition Solutions

Twin RCCB Board plus dedicated RCBO
with overall 100A Switch Disconnector - Insulated

RCCB rating	RCCB ways	RCCB rating	RCCB ways	RCBO rating	RCBO ways	Total ways	Enclosure size	Cat ref. Insulated plain door	Cat ref. Insulated glazed door
63A	5	63A	4	6A	1	10	5	**VC754R**	**VC754RG**
63A	7	63A	6	6A	1	14	6	**VC776R**	**VC776RG**
80A	5	80A	4	6A	1	10	5	**VC854R**	**VC854RG**
80A	7	80A	6	6A	1	14	6	**VC876R**	**VC876RG**

Twin RCCB Board plus dedicated RCBO
with overall 100A Switch Disconnector - Metal

VH776R

RCCB rating	RCCB ways	RCCB rating	RCCB ways	RCBO rating	RCBO ways	Total ways	Enclosure size	Cat ref. Metal plain door	Cat ref. Metal glazed door
63A	5	63A	4	6A	1	10	5	**VH754R**	**VH754RG**
63A	7	63A	6	6A	1	14	6	**VH776R**	**VH776RG**
80A	5	80A	4	6A	1	10	5	**VH854R**	**VH854RG**
80A	7	80A	6	6A	1	14	6	**VH876R**	**VH876RG**

Three RCCB Board with overall 100A Switch Disconnector
- Insulated

RCCB rating	RCCB ways	RCCB rating	RCCB ways	RCCB rating	RCCB ways	Total ways	Enclosure size	Cat ref. Insulated plain door	Cat ref. Insulated glazed door
80A	5	80A	5	40A	2	12	6	**VC8552**	**VC8552G**

Three RCCB Board with overall 100A Switch Disconnector
- Metal

RCCB rating	RCCB ways	RCCB rating	RCCB ways	RCCB rating	RCCB ways	Total ways	Enclosure size	Cat ref. Metal plain door	Cat ref. Metal glazed door
80A	5	80A	5	40A	2	12	6	**VH8552**	**VH8552G**

BS 1361 HRC Fuse Carrier

Cat Ref.	Pack Qty	Rating (In)	Width in 17.5mm
LB113	12	5A	1
LB115	12	15A	1
LB116	12	20A	1
LB118	12	30A	1

BS 1361 HRC Spare Cartridge Fuse

Cat Ref.	Pack Qty	Rating (In)	Width in 17.5mm
L153	50	5A	-
L155	50	15A	-
L156	50	20A	-
L158	50	30A	-

Twin RCCB Board with overall 100A Switch Disconnector - Insulated

VC7121C1G

RCCB rating	RCCB ways	RCCB rating	RCCB ways	Total ways	Enclosure size	Cat ref. Insulated plain door	Cat ref. Insulated glazed door
63A	Config.	63A	Config.	12	6	VC712C1	VC712C1G
63A	Config.	63A	Config.	14	6	VC714C1	VC714C1G
63A	5	63A	5	10	5	VC755H1	VC755H1G
63A	6	63A	6	12	6	VC766H1	VC766H1G
80A	Config.	80A	Config.	10	5	VC810C	VC810CG
80A	Config.	80A	Config.	16	6	VC816C	VC816CG
80A	5	80A	5	10	5	VC855H	VC855HG
80A	6	80A	6	12	6	VC866H	VC866HG

Twin RCCB Board with overall 100A Switch Disconnector - Metal

VH755H1

RCCB rating	RCCB ways	RCCB rating	RCCB ways	Total ways	Enclosure size	Cat ref. Metal plain door	Cat ref. Metal glazed door
63A	Config.	63A	Config.	12	6	VH712C1	VH712C1G
63A	Config.	63A	Config.	14	6	VH714C1	VH714C1G
63A	5	63A	5	10	5	VH755H1	VH755H1G
63A	6	63A	6	12	6	VH766H1	VH766H1G
80A	5	80A	5	10	5	VH855H	VH855HG
80A	6	80A	6	12	6	VH866H	VH866HG

Miniature Circuit Breaker (MCB)
6kA Type B Single Pole

Cat Ref.	Pack Qty	Rating (In)	Width in 17.5mm
MTN106	12	6A	1
MTN110	12	10A	1
MTN116	12	16A	1
MTN120	12	20A	1
MTN125	12	25A	1
MTN132	12	32A	1
MTN140	12	40A	1
MTN150	12	50A	1
MTN163	12	63A	1

Residual Current Operated Circuit Breaker (RCBO)
30mA Type B Single Pole

Cat Ref.	Pack Qty	Rating (In)	Width in 17.5mm
ADN106	12	6A	1
ADN110	12	10A	1
ADN116	12	16A	1
ADN120	12	20A	1
ADN132	12	32A	1
ADN140	12	40A	1

Twin RCCB Board plus unprotected circuit/s with overall 100A Switch Disconnector - Insulated

RCCB rating	RCCB ways	RCCB rating	RCCB ways	Unprotected ways	Total ways	Enclosure size	Cat ref. Insulated plain door	Cat ref. Insulated glazed door
63A	3	63A	4	3	10	5	**VC7343U**	**VC7343UG**
63A	5	63A	6	3	14	6	**VC7563U**	**VC7563UG**
80A	5	80A	4	1	10	5	**VC854U**	**VC854UG**
80A	7	80A	6	1	14	6	**VC876U**	**VC876UG**
80A	3	80A	4	3	10	5	**VC8343U**	**VC8343UG**
80A	5	80A	6	3	14	6	**VC8563U**	**VC8563UG**

Twin RCCB Board plus unprotected circuit/s with overall 100A Switch Disconnector - Metal

VH7563U

RCCB rating	RCCB ways	RCCB rating	RCCB ways	Unprotected ways	Total ways	Enclosure size	Cat ref. Metal plain door	Cat ref. Metal glazed door
63A	3	63A	4	3	10	5	**VH7343U**	**VH7343UG**
63A	5	63A	6	3	14	6	**VH7563U**	**VH7563UG**
80A	5	80A	4	1	10	5	**VH854U**	**VH854UG**
80A	7	80A	6	1	14	6	**VH876U**	**VH876UG**
80A	3	80A	4	3	10	5	**VH8343U**	**VH8343UG**
80A	5	80A	6	3	14	6	**VH8563U**	**VH8563UG**

Twin RCCB Board with overall 100A Switch Disconnector - Flush

VF712C1

RCCB rating	RCCB ways	RCCB rating	RCCB ways	Total ways	Enclosure size	Cat ref.
63A	Config.	63A	Config.	12	6	**VF712C1**
63A	Config.	63A	Config.	14	6	**VF714C1**
80A	Config.	80A	Config.	12	6	**VF812C**
80A	Config.	80A	Config.	14	6	**VF814C**

BS 1361 HRC Fuse Carrier

Cat Ref.	Pack Qty	Rating (In)	Width in 17.5mm
LB113	12	5A	1
LB115	12	15A	1
LB116	12	20A	1
LB118	12	30A	1

BS 1361 HRC Spare Cartridge Fuse

Cat Ref.	Pack Qty	Rating (In)	Width in 17.5mm
L153	50	5A	-
L155	50	15A	-
L156	50	20A	-
L158	50	30A	-

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Consumer Unit
- Dimensions

insulated enclosure size	Width mm	Height mm	Depth mm	Fixing centres mm						
				A	B	C	D	E	F	G
3	240	245	105	115	50	45	72	205	145	160
4	310	245	105	115	50	45	107	205	215	230
5	380	245	105	115	50	45	143	205	285	302
6	490	245	105	115	50	45	195	205	395	410

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Metal Consumer Unit
- Dimensions
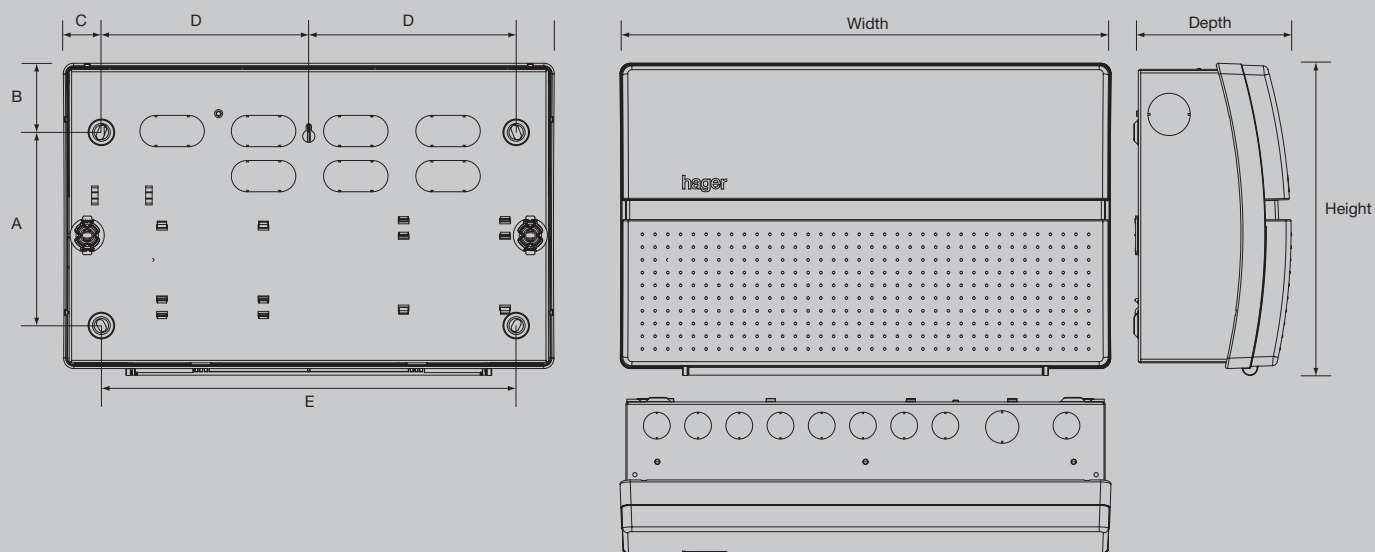
Metal enclosure size	Width mm	Height mm	Depth mm	Fixing centres mm				
				A	B	C	D	E
3	240	245	120	150	55	30	89	178
4	310	245	120	150	55	30	125	250
5	380	245	120	150	55	30	160	320
6	490	245	120	150	55	30	214	429

Non standard enclosure

Sizes	Width mm	Height mm	Depth mm
VH201	166	193	124
VH202	166	193	124

Flush Consumer Unit
- Dimensions
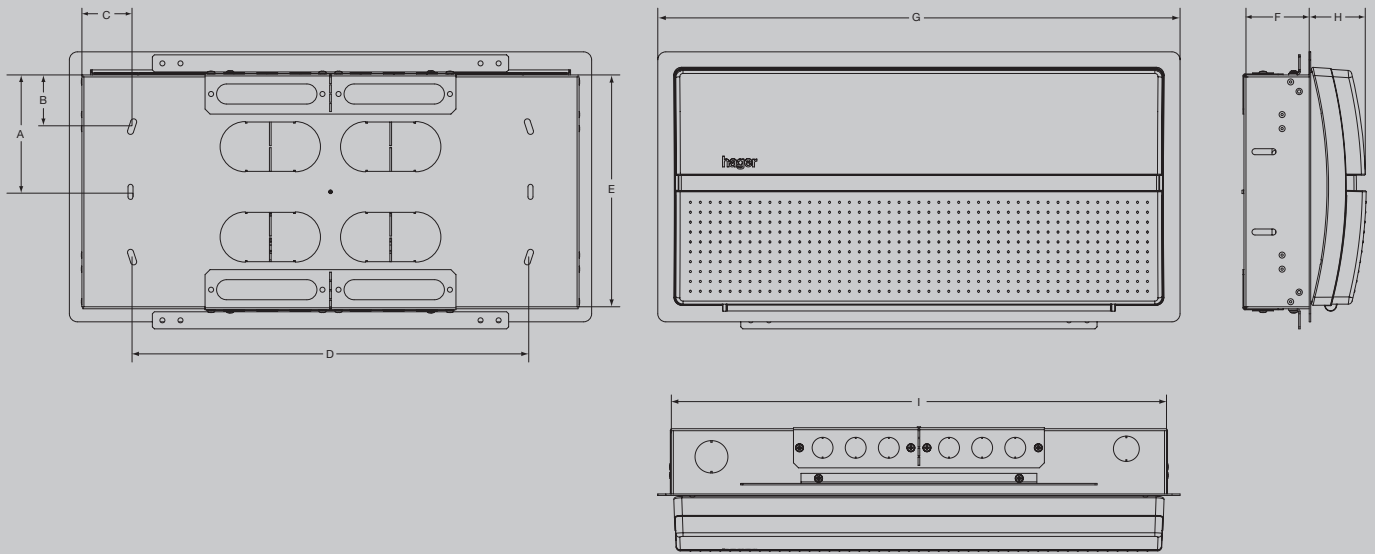
|	VF712C1 / VF714C1 / VF812C / VF814C mm
A	115
B	50
C	50
D	397
E	232
F	65
G	520
H	55
I	495

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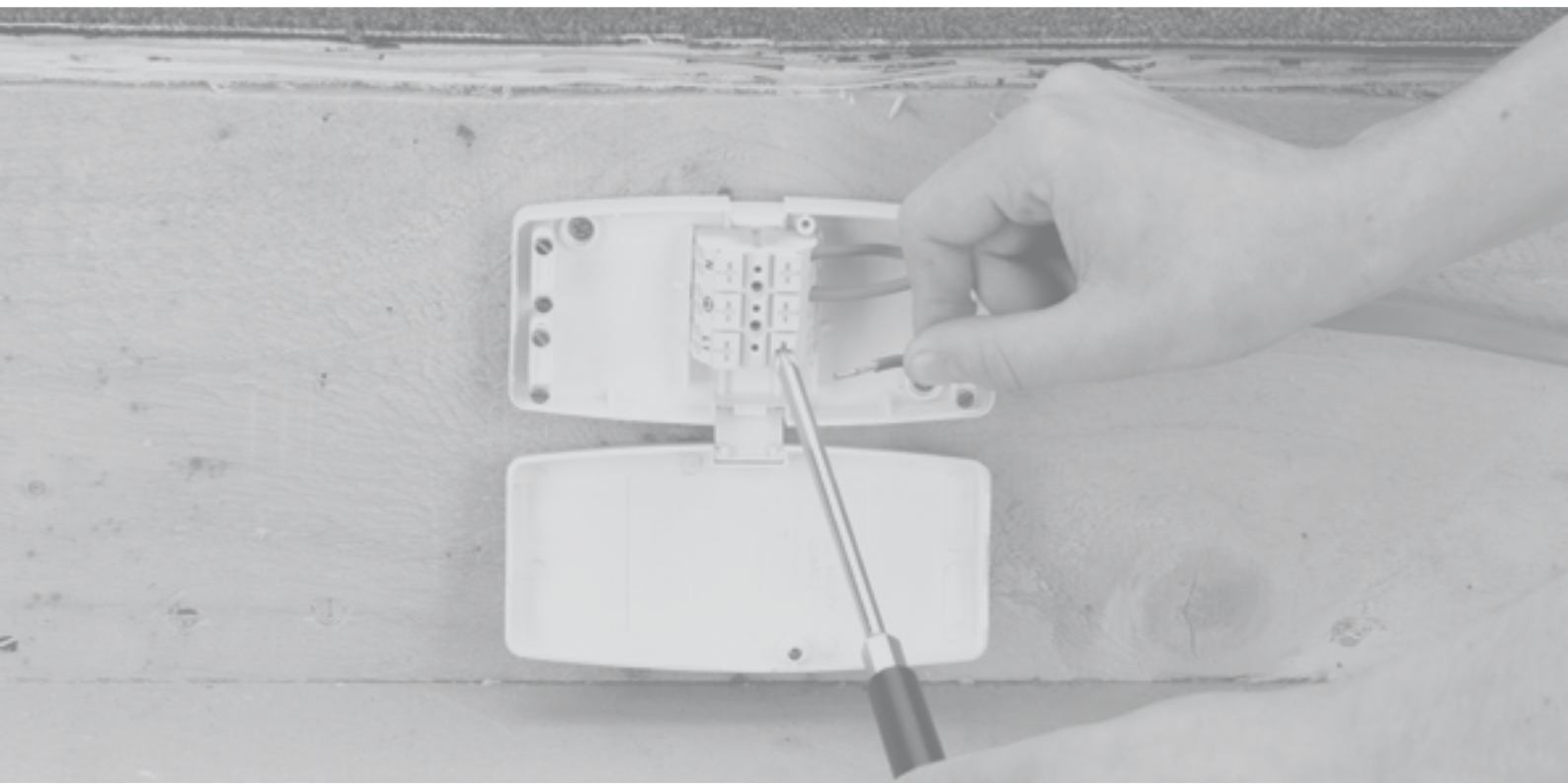
Ashley Junction Boxes

Renowned as market leader, the comprehensive Ashley range of quality junction boxes are available for most applications.

The Ashley junction box range consists of three types:
• Downlighter junction box
• Maintenance free junction box
• Traditional junction box
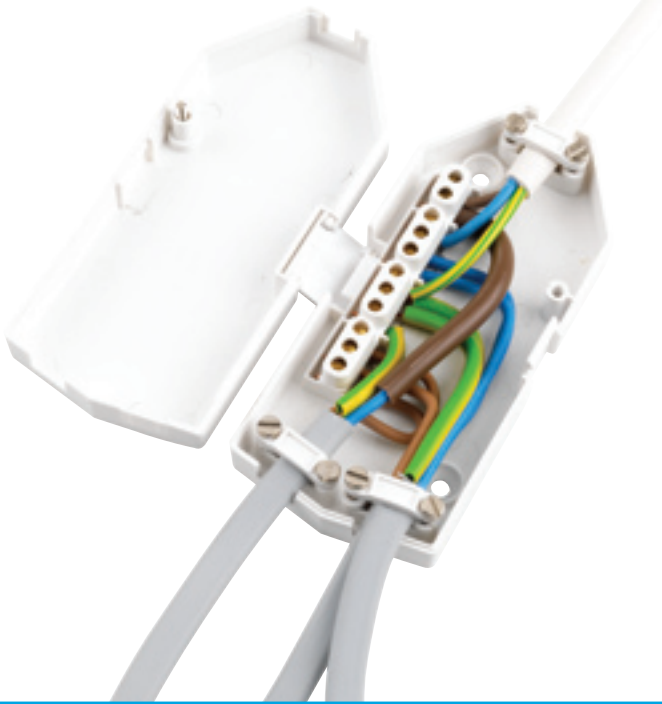
Downlighter Junction Box

Recognising that junction boxes are used to supply the connection between fixed wiring and downlighters, we have developed a new type of junction box that will help contractors meet the needs of the regulations.

The J501 is torpedo shaped to fit through a 58mm diameter hole in the ceiling. All the cables are securely clamped and they exit from either end of the junction box. This is in contrast to other junction boxes where the cables are generally not clamped and often exit at different angles making it hard to push or pull them through the hole without risking damage or loosening the connections.

A loose or disconnected cable is a hidden danger with junction boxes. With Part P and an increasing drive for safety, such products have come under close inspection and clearly the industry has had to come up with new and improved solutions.

Wiring is fast and simple. The J501 fits comfortably in the hand and the cables can be clamped for easier connection. Cabling space is maximised with all the terminals arranged on one side and the upper wall on the lid hinges through 360° for unrestricted access. For wiring, the three plate terminal style in the box is logical and easy to use and separate terminals for flexible cords and twin and CPC cables help prevent damage to smaller flexible conductors.

During installation all the cables are securely clamped, so there is no strain placed on the terminal connections and no risk of exposed unsheathed conductors. The cable clamps can be reversed to allow either single or double cable entry, which allows up to four flat and one flexible cable to be terminated.
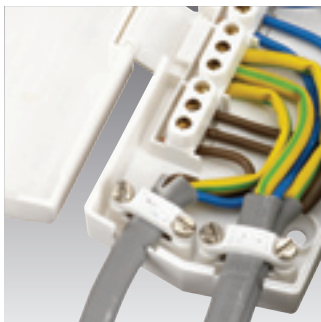
Clamps secure cables in place. They can also be reversed to allow for double cable entry.
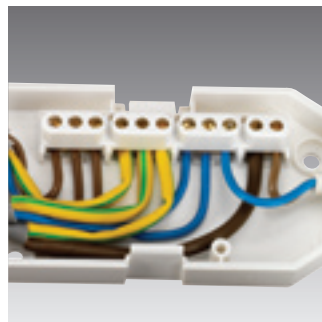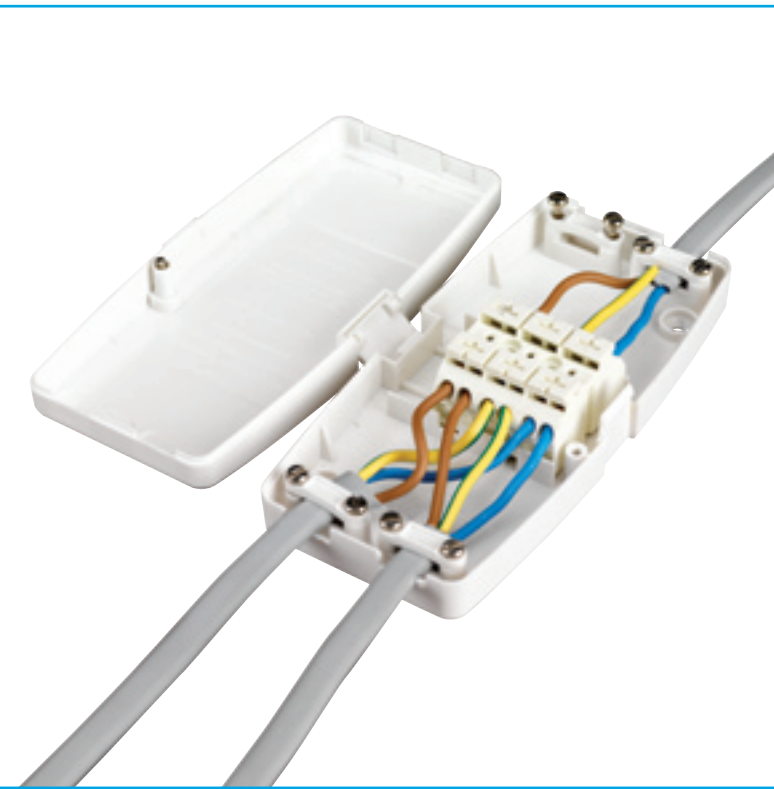
Three plate terminal style is logical and easy to follow.
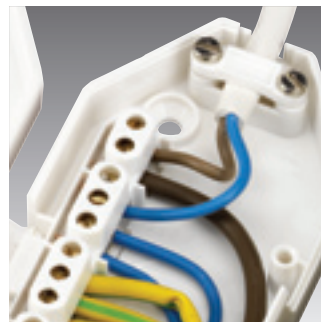
Rear holes for fixing to wall if required.

Selective breakouts for single or two cables.

Maintenance Free Junction Box

new The Maintenance Free Junction Box from Ashley has been manufactured to accommodate the increasing need to fit junction boxes in so called 'inaccessible' areas.

The Maintenance Free junction box provides a secure and maintenance free means of connecting fixed wiring in any indoor application, whether it be under floor situations between ground and first floor in houses, or where jointing of cables is used to aid rewiring.

The new range contains spring fit terminals that do not relax and therefore do not need to be accessible for future inspection. Tests on these terminals include long-term vibration, shock test, long term connection test, pull out, voltage drop, temperature rise and exposure to corrosive atmospheres.

The terminals accept and secure solid, stranded or flexible conductors from 0.5mm^2 to 4mm^2. Twin and CPC and flexible cords can all be mixed. You then secure the cage clamp terminal using a screwdriver or finger to push down on the push button.

The Maintenance Free junction box is ideal for use in residential and commercial buildings, refurbishments and re-wires, power and lighting circuits and circuits wired in sheathed cables.

The Maintenance Free junction box from Ashley is unrivalled in today's market. No other junction box provides as many features that allow Contractors to comply with the latest wiring regulations.
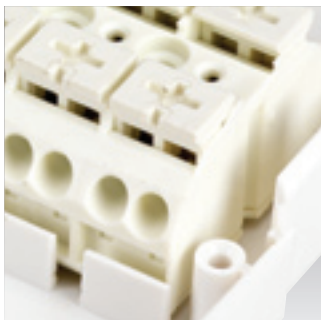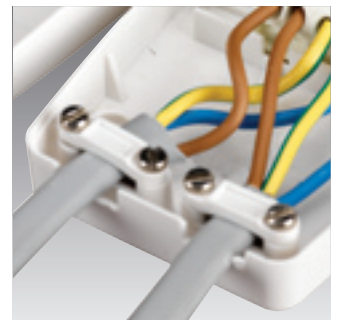

Four separate cable terminations per connector.
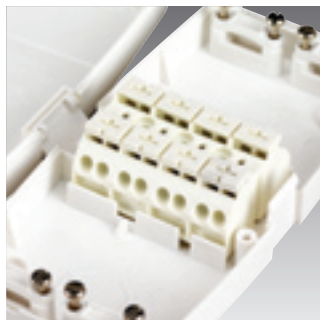
Maintenance free terminations.

Simple break-outs on base & lid to select cable entry points.

Reversible cable clamps.

Downlighter Junction Box

Description	Terminal capacity	Pack qty.	Cat Ref.
Downlighter Junction Box Junction box complete with incoming and outgoing cable clamps. 3 plate terminals with separate terminals for flexible cords. Dimensions: h=122mm x w=53mm x d=27 mm Rating 16A	$3 \times 3 \times 1.5mm^2$ $1 \times 2 \times 1.5mm^2$	10	**J501**

J501

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new

Maintenance Free Junction Box

Description	Terminal capacity	Pack qty.	Cat Ref.
Maintenance Free Junction Box Junction box complete with incoming and outgoing cable clamps. 4 plate terminals with separate terminals for flexible cords. Dimensions: h=140mm x w=65mm x d=30 mm			
32A 3 Terminals - Power	$3 \times 4 \times (0.5 - 4.0mm^2)$	10	**J803**
20A 4 Terminals - Lighting	$4 \times 4 \times (0.5 - 4.0mm^2)$	10	**J804**

J803

J804

ashley

Traditional Junction Boxes

- Complies with BS 6220
- Slot terminals are ideal for taking spurs off uncut ring or loop circuit cables
- Solid machined brass terminals

- Junction box covers secured by single centre screws (apart from J701 which has two screws)

- J701 and J701/TB junction / adaptable box will accept 16mm x 16mm and /or 16mm x 25mm mini-trunking

Description	Fixing centres	Terminal capacity	Pack qty.	Cat Ref.
Knockout slot terminal junction box Junction box - brown 20 Amp 4 terminal Dimensions: 59mm dia x 25mm	32mm	3 x 1.5mm^2	10	**J201**
Selective entry slot terminal junction boxes Junction box - brown 20 Amp 4 terminal Dimensions: 79mm dia x 26mm	50.8mm	3 x 1.5mm^2	10	**J301**
Junction box - brown 30 Amp 3 terminal Dimensions: 89mm dia x 32mm	50.8mm	4 x 2.5mm^2	10	**J401**
Junction box - brown 20 Amp 6 terminal Dimensions: 89mm dia x 26mm	50.8mm	3 x 1.5mm^2	10	**J601**
Junction / adaptable box Junction box - no terminals Dimensions: h = 122mm x w = 156mm x d = 32mm			5	**J701**
Junction box - with terminal block, Cable ties and related wiring card Dimensions: h = 122mm x w = 156mm x d = 32mm		4 x 1.5mm^2	5	**J701/TB**

J201

J301

J401

JB701/TB

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Customer Services and Sales Faxline		**0870 240 0400**

Technical Helpline	Technical Engineers offer both national and local support.	**0870 607 6677** technical@hager.co.uk
Technical Faxline		**01952 675557**

Hager Online	Visit our website for up to date news on Hager and for general brand information e-mail us.	www.hager.co.uk info@hager.co.uk

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