cmd

Power Distribution For offices and commercial spaces



Welcome

CMD Ltd design and manufacture innovative, quality power distribution systems that are used in some of the most high-profile commercial office, retail and hospitality spaces.

Founded in 1984 and based at our Yorkshire headquarters, we are a true British manufacturer. Our leading range of power solutions begins with our powertrack or power hub systems that connects easily together.

We pride ourselves on being able to offer a full range of connectivity from the powertrack and power hub systems to floor boxes or access grommets that bring the power to the user via a range of under desk, in desk, or on desk power modules.

With an unrivalled technical specification team and a focused commitment to customer service, CMD are your ideal partner for all your commercial office power requirements.

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Product images and part numbers included in this catalogue are for illustration purposes only and may be subject to change at any time. Dimensions and cable lengths are approximate and for guidance only.

Introduction



Commitment to Quality and Service

CMD Ltd is committed to promoting corporate and social responsibility. We manage business ethically, honestly and with integrity. Our management systems and procedures are continually improving and compliant with the requirements of ISO 14001 Environmental Management System and ISO 9001 Quality Management System.

Technical and Regulatory Guidance

We have dedicated internal and external technical specification teams on-hand to support you through every step of your project. Our commonly ordered products are available on Luckins and we have compiled a set of guidance statements that can be used when specifying your electrical system using CMD products. The statements listed below can be found at the back of this catalogue.

3m Tap-off Regulation.

RCD Compliance.

BS EN 61535 Installation Couplers Intended for Permanent Connection in Fixed Installations.

BS 5733 General Requirements for Electrical Accessories.

BS 6396 Electrical systems in office furniture and educational furniture.

Power Module Troubleshooting.

Electrical Product Testing.

ISO 14001 Environmental Management System and ISO 9001 Quality Management System.

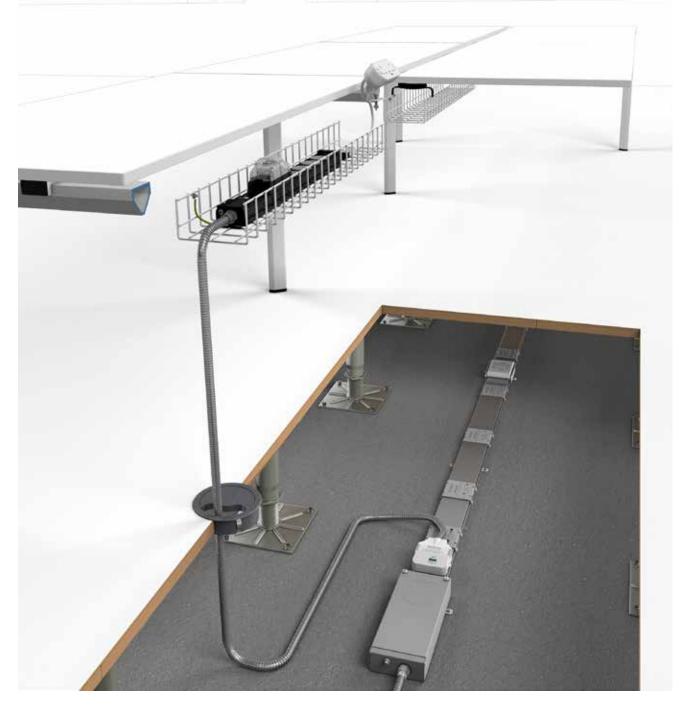


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Connecting Power, People and Organisations

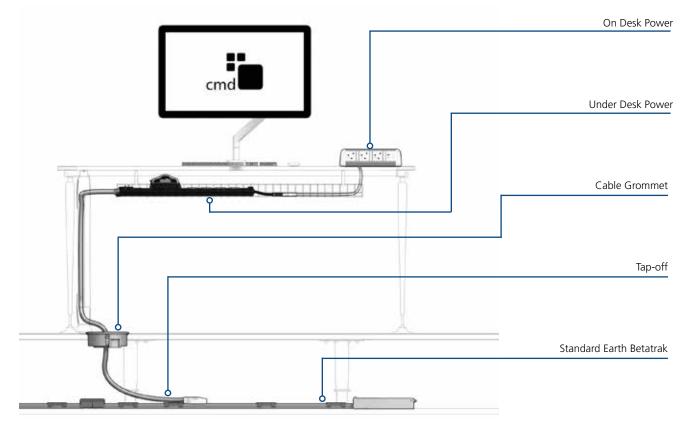




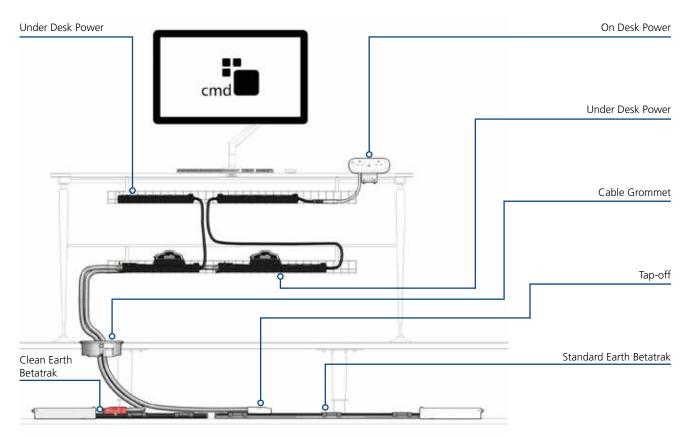
Workstation Schematics



Workstation Powered by CMD 63A Betatrak System



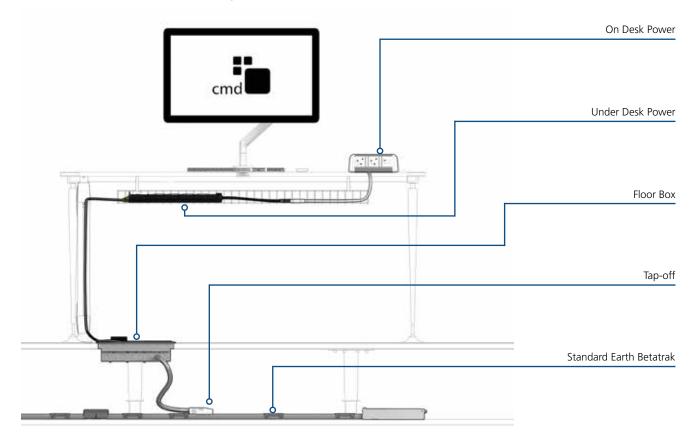
Workstation Powered by two CMD 63A Betatrak Systems



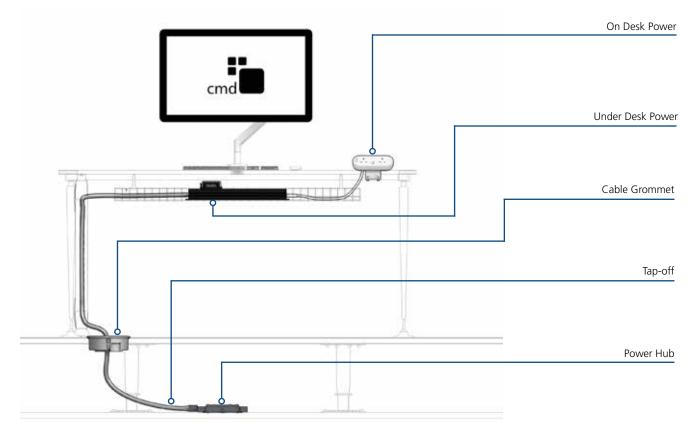


Workstation Schematics

Workstation Powered by CMD Floor Box



Workstation Powered by CMD 32A Power Hub System





Betatrak® Powertrack

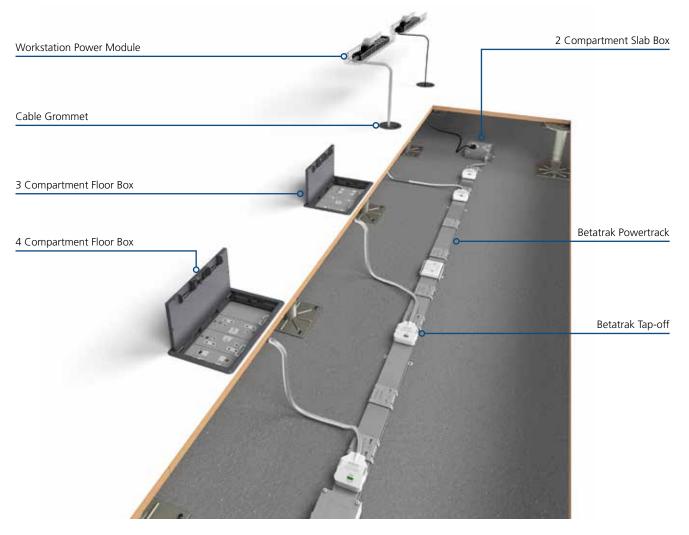
Betatrak is CMD Ltd's underfloor powertrack solution and has been designed and manufactured in accordance with BS EN 61534-22 Powertrack systems. Betatrak is an efficient, flexible solution to underfloor power distribution as it uses a click fit method for a fast-fit connection - reducing on-site labour costs and installation time. Our Betatrak powertrack solution does not propagate flame and is very low maintenance and exceptionally reliable making it the perfect solution in today's modern construction world.

The 63A Betatrak system caters for Standard Earth, Clean Earth (C/E) low noise, Auxiliary Earth, Dual Circuit or 3-Phase applications. Betatrak is installed into raised access floors and there is an option for installation into ceiling areas. Betatrak comes in lengths of 1.2m, 1.8m, 2.4m or 3.6m with tap-off positions provided at 300mm as standard and supplied with integral fixing brackets and sliding dust covers.

The Betatrak system design ensures a safe on-site installation. This is achieved because all Betatrak tap-off outlets are colour and key coded to avoid errors during assembly. For maximum safety each operates a shutter on insertion to ensure no accidental contact can be made to an energised powertrack.

The benefits of using CMD's Betatrak powertrack system:

- A comprehensive range of solutions independently certified to BS EN 61534-22.
- Each length of Betatrak is fitted with fast-fit connection and fixing brackets.
- Feed units are supplied with a stop-end cap.
- Sockets are colour and key coded to avoid installation errors and to ensure a secure tap-off connection.
- Tap-off outlets are protected by integral sliding dust covers.

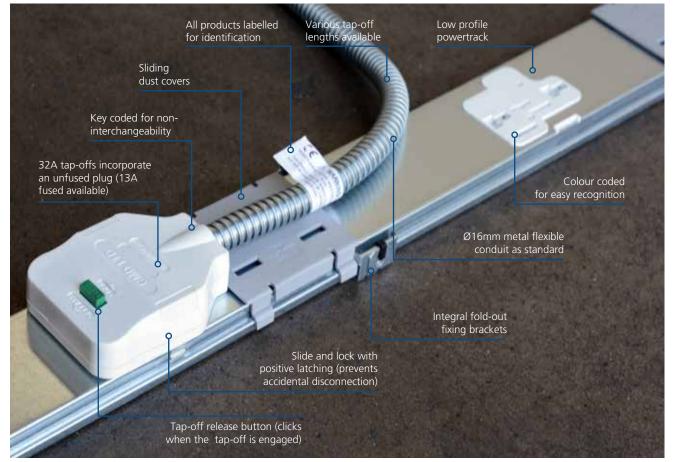




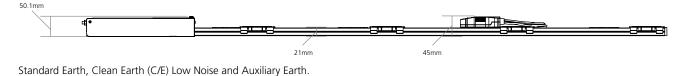


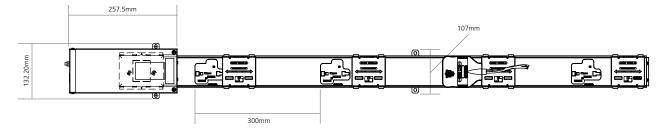
Betatrak Powertrack

Features

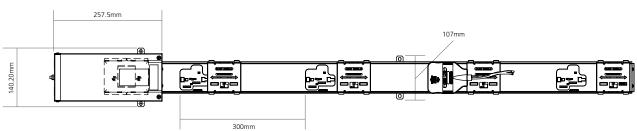


Dimensions





Dual Circuit and 3-Phase.

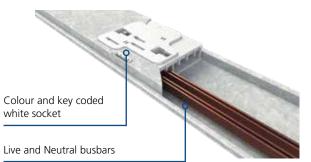




Betatrak Technical Information

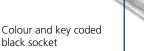






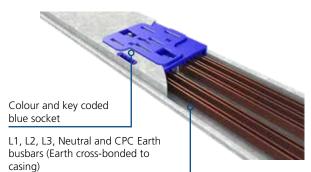
Auxiliary Earth





Live, Neutral and CPC Earth busbars (Earth cross-bonded to casing)

3-Phase



Betatrak Tap-off Engagement/Release



1. Slide dust cover to expose the socket. Align tap-off pins with slots on socket. Push down to engage.

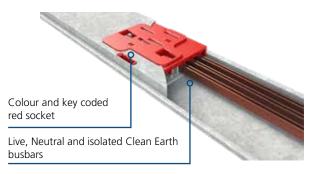


2.Press down and push backwards until button clicks upwards to lock.

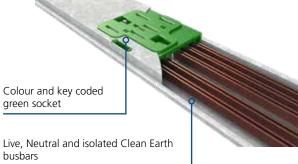


3. To remove, press button to disengage. Push forward and lift up to remove.

Clean Earth (C/E) Low Noise



Dual Circuit



busbars Standard Earth Circuit: Live and Neutral busbars

Common Features

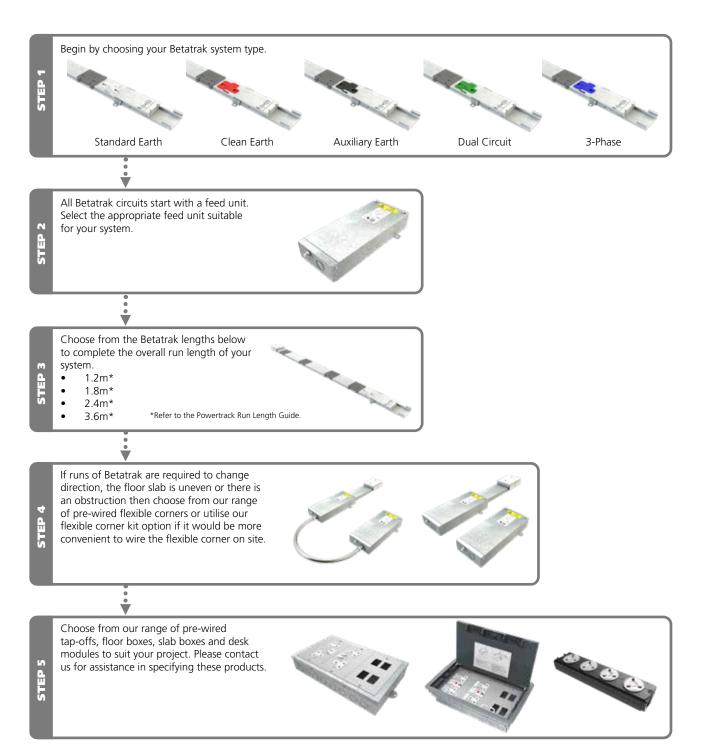
- All internal copper busbars are 14mm²
- Outer steel casing used as CPC Earth path (equivalent to 14mm² copper)
- Colour coded and keyed connections to prevent different systems from being connected



4. Slide dust cover to protect the socket.



Betatrak Specification Guide





Betatrak Run Length Guide

To ensure the most cost effective Powertrack run composition please use the following guide to select the standard lengths needed per run. To comply with BS 7671 Requirements for electrical installations, you must ensure that the maximum voltage drop and earth fault loop impedance is not exceeded when calculating the powertrack run lengths.

		Len	gths				Len	gths	
Run	3.6m	2.4m	1.8m	1.2m	Run	3.6m	2.4m	1.8m	1.2m
1.2m	-	-	-	1	19.2m	5	-	-	1
1.8m	-	-	1	-	19.8m	5	-	1	-
2.4m	-	1	-	-	20.4m	5	1	-	-
3.0m	-	-	1	1	21.0m	5	-	1	1
3.6m	1	-	-	-	21.6m	6	-	-	-
4.2m	-	1	1	-	22.2m	5	1	1	-
4.8m	1	-	-	1	22.8m	6	-	-	1
5.4m	1	-	1	-	23.4m	6	-	1	-
6.0m	1	1	-	-	24.0m	6	1	-	-
6.6m	1	-	1	1	24.6m	6	-	1	1
7.2m	2	-	-	-	25.2m	7	-	-	-
7.8m	1	1	1	-	25.8m	6	1	1	-
8.4m	2	-	-	1	26.4m	7	-	-	1
9.0m	2	-	1	-	27.0m	7	-	1	-
9.6m	2	1	-	-	27.6m	7	1	-	-
10.2m	2	-	1	1	28.2m	7	-	1	1
10.8m	3	-	-	-	28.8m	8	-	-	-
11.4m	2	1	1	-	29.4m	7	1	1	-
12.0m	3	-	-	1	30.0m	8	-	-	1
12.6m	3	-	1	-	30.6m	8	-	1	-
13.2m	3	1	-	-	31.2m	8	1	-	-
13.8m	3	-	1	1	31.8m	8	-	1	1
14.4m	4	-	-	-	32.4m	9	-	-	-
15.0m	3	1	1	-	33.0m	8	1	1	-
15.6m	4	-	-	1	33.6m	9	-	-	1
16.2m	4	-	1	-	34.2m	9	-	1	-
16.8m	4	1	-	-	34.8m	9	1	-	-
17.4m	4	-	1	1	35.4m	9	-	1	1
18.0m	5	-	-	-	36.0m	10	-	-	-
18.6m	4	1	1	-	36.6m	9	1	1	-



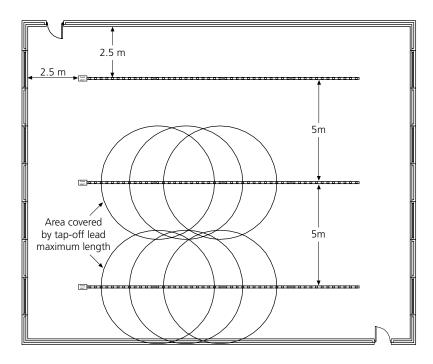
Betatrak Layout Guidance

Betatrak is normally arranged in parallel runs with the feed units orientated towards the incoming supply to ensure comprehensive coverage when using a standard 3m tap-off, spacing is recommended to be 5m between each parallel run of track and 2.5m from the perimeter.

Typical Floor Layouts:

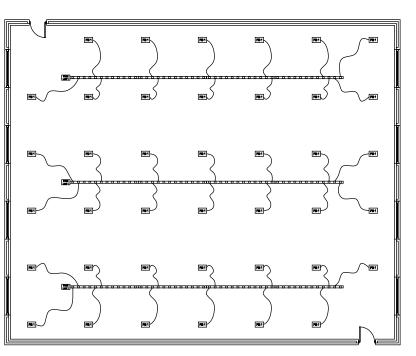
Powertrack

3m tap-offs provide full coverage when powertrack is laid out on 5m centres.



Floor Boxes

For general purposes, floor boxes shown are positioned 1 floor box for every $10m^2$ (excluding doorways).







Betatrak Earthing Explained

Betatrak System Types

Standard Earth uses the outer galvanised metal casing for the standard earth path.

Clean Earth (C/E) low noise busbar, is for use in power distribution systems that require prevention of noise contamination from other power sources and induced interference from external sources e.g., air conditioning units. Clean Earth (C/E) low noise uses the outer galvanised metal casing for the standard earth path and an internal isolated busbar for the Clean Earth (C/E) low noise path.

Auxiliary Earth uses the outer galvanised metal casing for the standard earth path and is cross-bonded with an internal standard earth busbar. This provides improved earth loop impedance compared to standard earth powertrack.

Dual Circuit is also for use in power distribution systems that require prevention of noise contamination. Dual Circuit combines a Standard Earth and a Clean Earth (C/E) low noise circuit in one housing. Dual Circuit can be used to supply two separate circuits for areas where there is a requirement for both a standard and a clean supply.

3-Phase is used to distribute a balanced 3-Phase and neutral supply into single phase load applications. 3-Phase uses the outer galvanised metal casing for the standard earth path and is cross-bonded with an internal standard earth busbar. This provides improved earth loop impedance compared to Standard Earth powertrack.

Wiring Regulation 543.7.1.203, BS 7671 Earthing requirements for installations of equipment having high protective conductor currents

This wiring regulation has commonly become known as 'high integrity earthing' and is a requirement for electrical circuits that have an earth conductor current that exceeds 10mA. It allows for the safe connection and operation of circuits or equipment with the potential for excessive earth leakage. Every final circuit and distribution circuit in a fixed wiring electrical installation must comply with one of five options.

Betatrak allows compliance with option (i), which states that the protective conductor shall not be less than 10mm². Betatrak achieves this using 63A high conductive, 14mm² copper busbar. The metal housing, when used as the protective earth conductor, has a copper cross-sectional area equivalent to 14mm².

CMD Ltd's tap-off units allow compliance with option (ii) of the wiring regulation. Option (ii) states the protective conductor shall have a cross-sectional area of not less than 4mm² and be enclosed to provide mechanical protection. All CMD's tap-offs with an LSOH multi-strand single cable have a 4mm² protective conductor and are housed in flexible conduit.

Clean Earth compliance to 543.7.1.203, BS 7671

CMD's Clean Earth (C/E) low noise powertrack system is designed to allow electrical installations to comply with both wiring regulation 543.7.1.203 and the requirements of a Clean Earth (C/E) low noise powertrack system. A Clean Earth (C/E) low noise powertrack system prevents contamination of the clean earth path from other polluting sources on the standard earth path by creating a greater distance to travel from source. Pollution is encouraged to discharge down the main earth bar at the electrical services intake point.



Betatrak Part Numbers

			Standard Earth	Clean Earth (C/E)	Auxiliary Earth	Dual Circuit	3-Phase
Feed Unit							
			PBSF3010/SM	PBCF4010/SM	PBAF3010/SM	PBDF6010/DM	PBTF5010/DM
Powertrack							
Length	No of Sockets	Centres (mm)	White Socket	Red Socket	Black Socket	Green Socket	Blue Socket
at a	**	N.	• <u>8</u> 8	CE N L	PEN L		PEN L3 L2 L1
3.6m	12	300	PBST3336	PBCT4336	PBAT3336	PBDT6336	PBTT5336
2.4m	8	300	PBST3324	PBCT4324	PBAT3324	PBDT6324	PBTT5324
1.8m	6	300	PBST3318	PBCT4318	PBAT3318	PBDT6318	PBTT5318
1.2m	4	300	PBST3312	PBCT4312	PBAT3312	PBDT6312	PBTT5312
Flexible Corne	r						
- Fel							
1m Conduit			PBSB3031H/SM	PBCB4031H/SM	PBAB3031H/SM	PBDB6031H/DM	PBTB5031H/DM
2m Conduit			PBSB3032H/SM	PBCB4032H/SM	PBAB3032H/SM	PBDB6032H/DM	PBTB5032H/DM
Flexible Corne	r Kit (does not incl	ude conduit or c	ables)				
- For							
			PBSB3000/SM	PBCB4000/SM	PBAB3000/SM	PBDB6000/DM	PBTB5000/DM



Betatrak Tap-offs

CMD Ltd's tap-off units are for use with the Betatrak powertrack system and are designed to ensure a safe on-site installation. They are non-interchangeable between the powertrack types, which are Standard Earth, Clean Earth (C/E) low noise, Auxiliary Earth, Dual Circuit (Standard Earth and Clean Earth) or 3-Phase. Tap-off units come in various lengths with fused and unfused options available.

Further key benefits include:

- Supplied with a slide locking and positive internal latching mechanism preventing accidental disconnection.
- Can be added to or removed from the Betatrak powertrack system while the system is live.

The metal flexible conduit on all CMD Betatrak Tap-offs are supplied at 225mm less than the 3m and 5m stated lengths to allow for electrical connections to components without stressing the electrical terminations. Therefore, a 3m tap-off will have a metallic flexible conduit length of 2775mm and a 5m tap-off will be 4775mm long.

CMD tap-off units allow compliance with option (ii) of wiring regulation 543.7.1.203, BS 7671 earthing requirements for installations of equipment having high protective conductor currents. This is achieved because the metal flexible conduit is 16mm diameter and encloses 4mm² protective conductor.

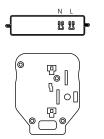
UK Regulation 434.2.1 of BS 7671:2018 (Fault Protection) states that the maximum length may not exceed 3m. This is because there will be a reduction in current-carrying capacity in a 63A powertrack system at the point where the 32A tap-off unit is required to supply other products in the powertrack system.

If your product solution requires you to exceed a length of 3m in a 63A powertrack system (where the circuit protective device is greater than 32A) then a 13A Fused tap-off unit should be used. CMD can supply unfused tap-offs that exceed 3m for use with powertrack systems rated at no more than 32A, but a suitable circuit protective device should be used to protect from overload and fault current. Extended guidance on unfused tap-off units exceeding 3m is available and should be referenced when specifying.

Betatrak Tap-off Part Numbers

Standard Earth

White plug and socket



PBSX3323H3m 32A Unfused Tap-offPBSX3325H5m 32A Unfused Tap-offPBSX3133H3m 13A Fused Tap-offPBSX3135H5m 13A Fused Tap-off	Code	Description
PBSX3133H 3m 13A Fused Tap-off	PBSX3323H	3m 32A Unfused Tap-off
,	PBSX3325H	5m 32A Unfused Tap-off
PBSX3135H 5m 13A Fused Tap-off	PBSX3133H	3m 13A Fused Tap-off
	PBSX3135H	5m 13A Fused Tap-off



Clean Earth (C/E)

• Red plug and socket

C/E N L	Code	Description
	PBCX4323H	3m 32A Unfused Tap-off
	PBCX4325H	5m 32A Unfused Tap-off
	PBCX4133H	3m 13A Fused Tap-off
	PBCX4135H	5m 13A Fused Tap-off



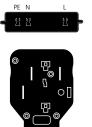


Betatrak Tap-off Part Numbers

Code

Auxiliary Earth

Black plug and socket



Code	Description
PBAX3323H	3m 32A Unfused Tap-off
PBAX3325H	5m 32A Unfused Tap-off
PBAX3133H	3m 13A Fused Tap-off
PBAX3135H	5m 13A Fused Tap-off

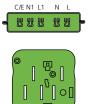
Description

Dual Circuit Betatrak is used with Standard Earth and Clean Earth tap-offs where two separate circuits are required in a single track system. Dual Circuit 25A unfused tap-offs are available on request.



Dual Circuit

• Green plug and socket



3-Phase

• Blue plug and socket

_	PE	Ν	L3	L2	L1	_
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Code	Description
PBTX3323H*	3m 32A Unfused Tap-off
PBTX3325H*	5m 32A Unfused Tap-off
PBTX3133H*	3m 13A Fused Tap-off
PBTX3135H*	5m 13A Fused Tap-off







*Add suffix -1, -2 or -3 to indicate required phase configuration of the above 3-Phase tap-offs E.g., PBTX3323H-1. NB: 3-Phase 28A unfused tap-offs with all three phases are available on request.

Betatrak Neutrik Tap-offs

Code	Description
PPA8284/K	5m 32A Unfused Standard Earth Tap-off c/w 3-pole 32A Black Neutrik
PPA7842/K	5m 32A Unfused Standard Auxiliary Earth Tap-off c/w 3-pole 32A Black Neutrik
PPA8306	5m 32A Unfused Clean Earth Tap-off c/w 5-pole 32A Grey Neutrik

Alphatrak Tap-offs (CMD's Legacy Powertrack System)

Code	Description
PASX3323H	3m 32A Unfused Standard Earth Tap-off
PASX3325H	5m 32A Unfused Standard Earth Tap-off
PACX4323H	3m 32A Unfused Clean Earth Tap-off
PACX4325H	5m 32A Unfused Clean Earth Tap-off





Betatrak Mechanical and Electrical Data

Electrical Characteristics						
Rated Current				63	Amps	
Rated Voltage				240/415	Volts	
Frequency	(D))))		(D.C.O.O. E	50	Hz	
Conditional Short Circuit Rating	(Protection and IEC 60	devices IEC 60269	//BS88 Fuse	16	kA	
Max withstand current		050 MCD/		10	kA Peak	
Short time withstand current				1200	A for 0.4 Sec	
Volt Drops (Line and Neutral)	Busbars			3.2	mV/A/m	
	Feed Unit			0.4	mV/A	
	Track Coup	bler		0.6	mV/A/m	
	Tap-off Co	nnection		0.5	mV/A	
	+4mm ² Ca	ble		11.00	mV/A/m	
	+2.5mm ²			18.00	mV/A/m	
	Flexible Co	rner Unit		3.6	mV/A	
	+10mm ² C	able (1.2m)		4.7	mV/A/m	
Earth Fault Loop Impedance	Line to Ear	th (Housing)		3.0	mΩ/m	
	Line to Ear	th (Bar)		3.2	mΩ/m	
	Line to Ear	th (Bar + Housing)		2.5	mΩ/m	
	Feed Unit	<u>,</u>		0.8	mΩ	
	Track Coup	bler		0.6	mΩ	
	Tap-off Co	nnection		0.6	mΩ	
	+4mm² Ca	ble		11.0	mΩ/m	
	+2.5mm ² a	and 4mm ² Cable		14.5	mΩ/m	
	Flexible Co	rner Unit		4.0	mΩ	
	+10mm ² C	able		4.7	mΩ/m	
Mechanical Data						
Number of Copper Conductors				2, 3, or 5		
Busbar Cross-section Area				14	mm ²	
Betatrak® Casing Copper Equivalent (Whe	re casing is protec	tive Earth)		14	mm ²	
Cable Termination Capacity				16	mm ²	
Tap-off Cable 32A (BS 7211)				4.0	mm ²	
Tap-off Cable 13A fused (BS 7211)				2.5 and 4.0 CPC	mm ²	
Tap-off Conduit Sizes				Ø16 or Ø20	mm	
Flexible Corner Unit Cable (BS 6231)				10	mm ²	
Flexible Interlink Conduit				Ø25	mm	
Feed Conduit Entry				1 or 2 x Ø25	mm	
IP Rating BS EN 60529				4X		
Material Specification						
Betatrak® Casing	Galvanised	Steel				
Busbars		uctivity Copper				
Busbar Insulators and Coupling Mould	•	rdant Polycarbona	te			
Couple Contacts	Copper					
Feed Unit Terminals	Brass Silver	Plated				
Tap-off Socket and Plug Mouldings		rdant Polycarbona	te			
Tap-off Shutter	Polyester	,				
Tap-off Plug Ins	Brass					
Tap-off Cable	LSOH BS 7	211				
Flexible Corner Cable	Tri Rated B	5 0251				
	Iri Rated B					
Ambient Temperature Control Factors			250	400	EOC	
Flexible Corner Cable Ambient Temperature Control Factors Temperature Factor	25C 1.13	30C 1.07	35C 1.0	40C 0.93	50C 0.75	



Betatrak Compliance Standard

ASTA Certificate of Verification Tests

Laboratory Ref. No:	45673/1
APPARATUS:	Rated current 63A, rated voltage 240V/415V, rated impulse voltage 4kV, 50Hz, with a conditional short circuit rating of 16kA. A range of underfloor powertrack systems and associated tap-off units.
DESIGNATION:	Betatrak system
MANUFACTURER:	CMD Limited, Sycamore Road, Eastwood Trading Estate, Rotherham, S65 1EN
TESTED BY:	kA Testing Facility, John Street, New Basford, Nottingham, NG7 7HL, UK
	Prof. Ir. Damstra Laboratory, P.O Box 23, 7550 AA, Hengelo, Europalaan 202, 7559 SC Hengelo, The Netherlands
	Exova (UK) Limited, 6 Coronet Way, Centenary Park, Salford, M50 1RE, UK
	Exova Warringtonfire, Holmesfield Road, Warrington, WA1 2DS, UK
	Exova (UK) Limited, Key Industrial Estate, Fernside Road, Willenhall, West Midlands, WV13 3YA, UK
DATE(S) OF TESTS:	26th February - 23rd August 2016

The apparatus, constructed in accordance with the description, drawings and photographs incorporated in this certificate has been subjected to the series of proving tests in accordance with:

IEC 61534-22 Edition 2.0, 2014-06 and BS EN 61534-22: 2014

Verifications with reference to the tests listed in Sub-Clause 5.3 of IEC 61534-1: Edition 2.1 2014-06

1.	Marking and Documentation, Clause 8.	8.	Insulation resistance test and dielectric strength test, Clause 15.
2.	Construction, Clause 9.	9.	Normal operation, Clause 16.
3.	Clearances, creepage distances and solid insulation, Clause 10.	10.	Temperature rise, Clause 17.
4.	Protection against electric shock, Clause 11.	11.	Short-circuit protection and short-circuit withstand strength, Clause 18.
5.	Terminals and Terminations, Clause 12.	12.	Resistance to heat, Clause 19.
6.	Screws, current carrying parts and connections, Clause 13.	13.	Fire hazard, Clause 20.
7.	Mechanical strength, Clause 14.	14.	External influences, Clause 21.

This certificate applies only to the apparatus tested. Responsibility for conformity of any apparatus having the same or other designations rests with CMD Ltd.

Issued by Intertek, Centre Court, Meridian Business Park, Leicester, LE19 1WD. Contact: asta@intertek.com Tel: +44 (0)116 263 0330.



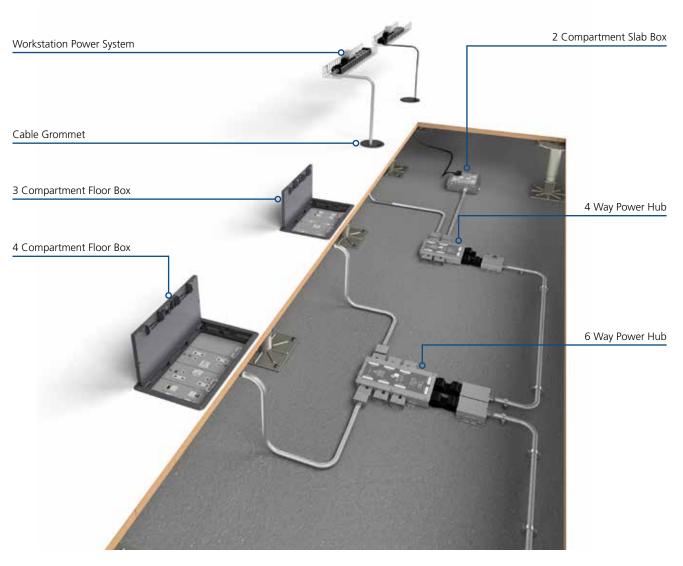
Power Hub Power Distribution

CMD Ltd's 32A Power Hub is a modular solution designed for buildings where a conventional powertrack system can't be installed due to height restrictions or obstacles in the floor void, or where the slab is uneven. Power Hub is an innovative solution when the environment is preventing runs of powertrack being laid at the same level. Power Hub is low profile at 38mm in height and is made from galvanised steel making it a strong and robust solution.

The benefits of using CMD's Power Hub power distribution system:

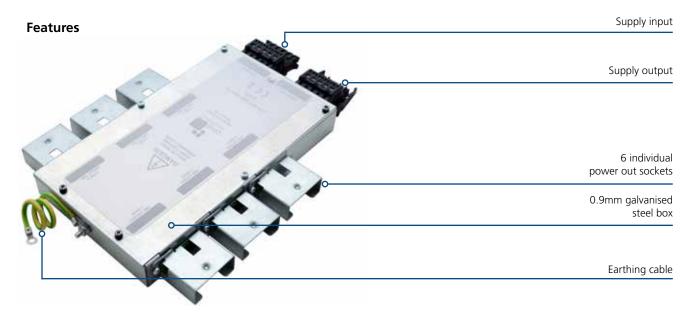
- Allows compliance with Wiring Regulation 543.7.1.203 BS 7671 for earthing requirements.
- 6 way and 4 way Power Hubs available for multiple configurations.
- A secure tap-off connection is made using BS EN 61535 connectors housed in a metallic housing.
- Supplied with retractable fixing brackets.







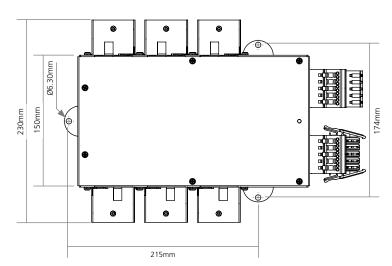
Power Hub Power Distribution

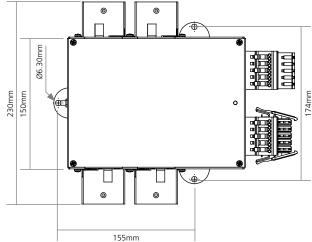


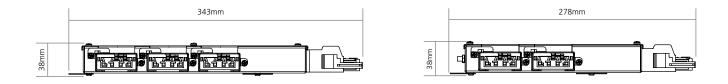
Dimensions:

6 Way

4 Way

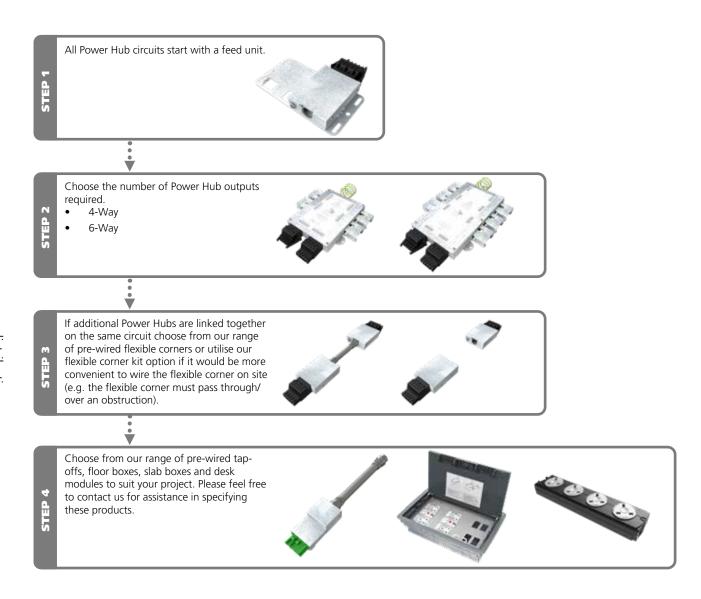








Power Hub Specification Guide





Power Hub Part Numbers

Power Hub

Code	Description
PZB3246MF6/W	6 Way 32A Power Hub
PZB3246MF4/W	4 Way 32A Power Hub

Power Hub Tap-offs

Code	Description
PZLXW434003.0	3m 32A Unfused Tap-off
PZLXW434005.0	5m 32A Unfused Tap-off

Power Hub Feed Units

Code	Description	Code	Description
PZBSTARTERF	Power Hub Feed Unit Suitable for 20mm SWA	PPA9123/K	5m 32A Unfused ⁻ Black Neutrik

Power Hub Neutrik Tap-off

Code	Description
PPA9123/K	5m 32A Unfused Tap-off c/w 3-pole 32A Black Neutrik

Power Hub Flexible Corners

Code	Description	Code	Description
PZLEM536003.0	Power Hub 3m Flexible Corner	RABX2069	32A Infeed Standard Earth Module
PZLEM536005.0	Power Hub 5m Flexible Corner		5m 32A Unfused Power Hub Tap-o



Code	Description
PZBFLEXKIT	Power Hub Flexible Corner Kit Suitable for 20mm SWA NB: Not supplied with cables or conduit.

3 Compartment Floor Box with 3m Tap-off

Code	Description
P20385G/HS3U101	1x Twin 13A Switched Socket
P20385G/HS3U102	1x Twin 13A Switched RCD Socket
P20385G/HS3U203	2x Twin 13A Switched Sockets
P20385G/HS3U204	2x Twin 13A Switched RCD Sockets

3 Compartment Floor Box with 5m Tap-off

Code	Description
P20385G/HS5U105	1x Twin 13A Switched Socket
P20385G/HS5U106	1x Twin 13A Switched RCD Socket
P20385G/HS5U207	2x Twin 13A Switched Sockets
P20385G/HS5U208	2x Twin 13A Switched RCD Sockets

Power Hub Tap-off with Rotasoc Infeed

Code	Description
RABX2069	32A Infeed Standard Earth Module c/w 5m 32A Unfused Power Hub Tap-off



4 Compartment Floor Box with 3m Tap-off

Code	Description
P20485G/HS3U109	1x Twin 13A Switched Socket
P20485G/HS3U110	1x Twin 13A Switched RCD Socket
P20485G/HS3U211	2x Twin 13A Switched Sockets
P20485G/HS3U212	2x Twin 13A Switched RCD Sockets

4 Compartment Floor Box with 5m Tap-off

Code	Description
P20485G/HS5U113	1x Twin 13A Switched Socket
P20485G/HS5U114	1x Twin 13A Switched RCD Socket
P20485G/HS5U215	2x Twin 13A Switched Sockets
P20485G/HS5U216	2x Twin 13A Switched RCD Sockets



Power Hub Tap-off Specification

CMD Ltd's tap-off units are for use with the Power Hub system and are supplied with a locking mechanism preventing accidental disconnection. Tap-off units are unfused and come in various lengths.

The metal flexible conduit on all CMD Power Hub Tap-offs are supplied at 225mm less than the 3m and 5m stated lengths to allow for electrical connections to components without stressing the electrical terminations. Therefore, a 3m tap-off will have a metallic flexible conduit length of 2775mm and a 5m tap-off will be 4775mm long.

CMD tap-off units allow compliance with option (ii) of wiring regulation 543.7.1.203, BS 7671 earthing requirements for installations of equipment having high protective conductor currents. This is achieved because the metal flexible conduit is 16mm diameter and encloses a 4mm² protective conductor.



Power Hub Mechanical and Electrical Data

Electrical Characteristics					
Electrical Characteristics					
Product Compliance	General requ Specification	irements for elect	rical accessories.	BS 5733	
Rated Current				32	Amps
Rated Voltage				250	Volts
Frequency				50	Hz
Short time withstand current				1200	A for 0.4 Sec
Volt Drops (Line and Neutral)	Extender Lea	d 6mm² Cable		7.3	mV/A/m
	Tap-off 4mm	² Cable		11.0	mV/A/m
	Male/Female	Connectors		1.5	mV/A
	Power Hub th	nrough connectio	n	8.5	mV/A
Earth Fault Loop Impedance	Extender Lea	d 6mm² Cable		6.16	mΩ/m
	Tap-off 4mm	² Cable		9.22	mΩ/m
	Male/Female	Connectors		1.0	mΩ
	Power Hub th	nrough connectio	n	5.09	mΩ
Mechanical Data					
Number of Copper Conductors				3	
Cross-section Area				4.0/6.0	mm ²
Cable Termination Capacity feed unit				4.0-6.0	mm ²
Tap-off Cable 32A (BS 7211)				4.0	mm ²
Tap-off Conduit Size				Ø16	mm
Flexible Corner Unit Cable (BS 7211)				6.0	mm ²
Flexible Interlink Conduit				Ø16	mm
Feed Conduit Entry				1 x Ø20	mm
IP Rating BS EN 60529				2XC	IP
Material Specification					
Casing	Galvanised St	teel			
Conductors internal	LSOH BS 721	1			
Connectors	Wago Conne	ctors Series 831 8	& 770 BS EN 6153	35	
Connector Contacts	Copper or co	pper alloy (surfac	e-treated)		
Feed Unit Terminals	Push-in CAG	E CLAMP Chrom	e nickel spring ste	eel (CrNi)	
Tap-off Socket and Plug Mouldings	Polyamide (PA				
Tap-off Conductors	LSOH BS 721	1			
Flexible Corner Conductors	LSOH BS 721	1			
Ambient Temperature Control Factors					
Temperature	30C	35C	40C	45C	50C
Factor	1.0	0.94	0.87	0.79	0.71





Floor Box Power Distribution

CMD Ltd offer four floor box variants. They are designed for use in commercial environments and provide an efficient fast-fit on site installation and ease of access to power sockets and data.

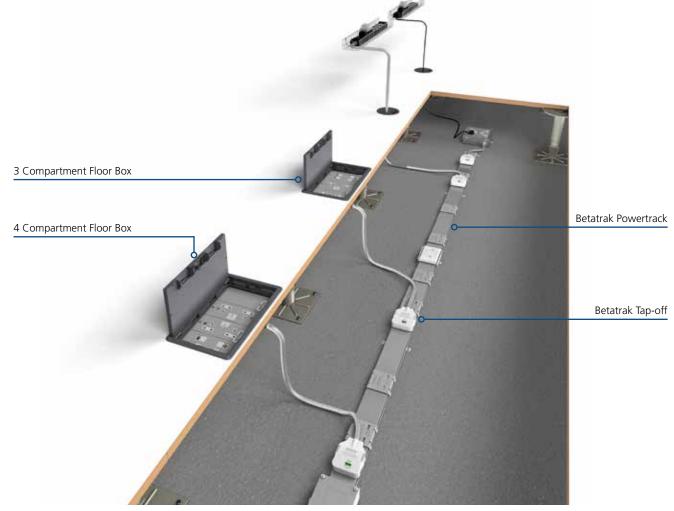
The floor boxes available are:

- 20 Series Floor Box (Single Box Base).
- 20A Series Floor Box (Separate Box Bases).
- 99 Series Floor Box (Single Box Base).
- 90 Series Stainless Steel Floor Box (Single Box Base).

The 20 and 20A Series fast-fit floor boxes are suitable for raised floor applications. The 99 and 90 Series floor boxes are suitable for raised floor and screed floor applications.

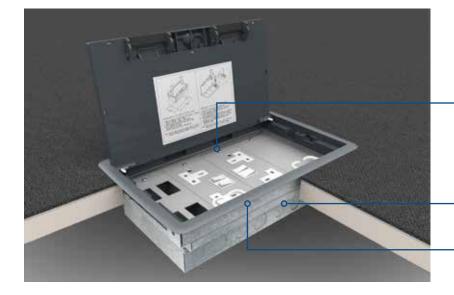
The benefits of using a CMD Floor Box:

- Multiple options available designed to meet your specification requirements.
- Designed to comply with BS EN 61534 Traffic Load Tests.
- All floor boxes for raised floors can be pre-wired with Betatrak Tap-offs for ease of installation.
- Low profile floor box surround to reduce the risk of tripping as per BS EN 61534-22 Powertrack systems. Particular requirements for powertrack systems intended for onfloor or underfloor installation, section 9.
- 20, 20A and 99 Series floor boxes fit the same floor tile aperture. Carpet can be fitted into a 6.5mm recess in the lid.









Fully configurable floor box

- Wide range of accessory plates.
- Can be prewired with Betatrak Tap-offs.
- Deeper versions available.

Fast-fit advantages

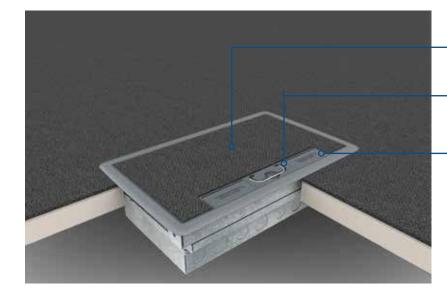
- Quick removal with services fitted.
 - Installation tolerance of -0/+3mm.
- Fixes to floor thicknesses of 15-50mm.

Grey moulded PC/ABS

RAL 7031.

•





Carpet inlay

• 6.5mm.

Handle

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• Self Closing.

Robust cable outlet

Designed with 'Anti-Trip' facility.

Optional lockable lid

Added security allows access for skilled or instructed persons only.



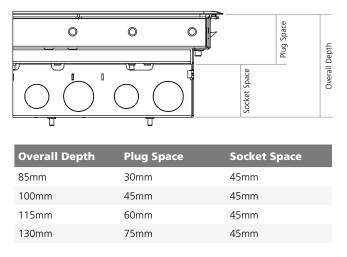
20 Series Floor Box (Single Box Base)

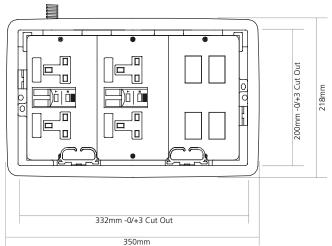
The 20 Series floor box is suitable for raised floor applications and is divided in to 3 or 4 compartments. The 20 Series floor boxes are designed for use in commercial environments and provide an efficient fast-fit on site installation and ease of access to power sockets and data.

Features include:

- One-piece box base divided in to 3 or 4 compartments.
- 3 and 4 compartment boxes are the same overall size.
- Accessory plate sizes:
 - 3 compartment: 100mm x 175mm.
 - 4 compartment: 75mm x 175mm.
- 85mm standard depth (other sizes available, see table).
- Tool free fixing mechanism for fast-fit on site installation.
- Grey lid and trim V0 rated PC/ABS.
- Quick release lid provides easy access to the accessory plates.
- Removeable lid and trim for ease of carpet fitting.
- Low profile floor box surround and non-trip cable outlet brackets designed to comply with BS EN 61534.
- Can be supplied complete with lockable lid.
- Galvanised steel back box.
- Can be pre-fitted with socket outlets and Betatrak Tap-off unit.











Empty 20 Series Floor Box

3 Compartment

Code	Description
PP20385G	Standard 'Fast-Fit' 85mm Deep
PP20310G	Standard 'Fast-Fit' 100mm Deep
PP20311G	Standard 'Fast-Fit' 115mm Deep
PP20313G	Standard 'Fast-Fit' 130mm Deep
Add Suffix /KL	Option to add a Key Lock to a floor box lid

4 Compartment

Code	Description
PP20485G	Standard 'Fast-Fit' 85mm Deep
PP20410G	Standard 'Fast-Fit' 100mm Deep
PP20411G	Standard 'Fast-Fit' 115mm deep
PP20413G	Standard 'Fast-Fit' 130mm Deep
Add Suffix /KL	Option to add a Key Lock to a floor box lid

Standard Earth Pre-wired 20 Series Floor Box

c/w 3m or 5m 32A unfused Betatrak Tap-off

3 Compartment

Code	Description
3m Standard Earth Wh	ite Plug
P20385G/BS3U104	1x Twin 13A Switched Socket
P20385G/BS3U207	2x Twin 13A Switched Sockets
P20385G/BS3U113	1x Twin 13A Switched RCD Socket
P20385G/BS3U221	2x Twin 13A Switched RCD Sockets
5m Standard Earth Wh	ite Plug
P20385G/BS5U102	1x Twin 13A Switched Socket
P20385G/BS5U204	2x Twin 13A Switched Sockets
P20385G/BS5U108	1x Twin 13A Switched RCD Socket
P20385G/BS5U213	2x Twin 13A Switched RCD Sockets

4 Compartment

Code	Description
3m Standard Earth Wh	ite Plug
P20485G/BS3U102	1x Twin 13A Switched Socket
P20485G/BS3U204	2x Twin 13A Switched Sockets
P20485G/BS3U103	1x Twin 13A Switched RCD Socket
P20485G/BS3U209	2x Twin 13A Switched RCD Sockets
5m Standard Earth Wh	ite Plug
P20485G/BS5U101	1x Twin 13A Switched Socket
P20485G/BS5U201	2x Twin 13A Switched Sockets
P20485G/BS5U102	1x Twin 13A Switched RCD Socket
P20485G/BS5U203	2x Twin 13A Switched RCD Sockets

Clean Earth Pre-wired 20 Series Floor Box

c/w 3m or 5m 32A unfused Betatrak Tap-off

3 Compartment

Code	Description
3m Clean Earth Red Plug]
P20385G/BC3U101	1x Twin 13A Switched Socket
P20385G/BC3U205	2x Twin 13A Switched Sockets
P20385G/BC3U110	1x Twin 13A Switched RCD Socket
P20385G/BC3U220	2x Twin 13A Switched RCD Sockets
5m Clean Earth Red Plug	9
P20385G/BC5U103	1x Twin 13A Switched Socket
P20385G/BC5U203	2x Twin 13A Switched Sockets
P20385G/BC5U108	1x Twin 13A Switched RCD Socket
P20385G/BC5U207	2x Twin 13A Switched RCD Sockets

4 Compartment

Code	Description
3m Clean Earth Red Plu	g
P20485G/BC3U100	1x Twin 13A Switched Socket
P20485G/BC3U202	2x Twin 13A Switched Sockets
P20485G/BC3U102	1x Twin 13A Switched RCD Socket
P20485G/BC3U207	2x Twin 13A Switched RCD Sockets
5m Clean Earth Red Plu	g
P20485G/BC5U101	1x Twin 13A Switched Socket
P20485G/BC5U201	2x Twin 13A Switched Sockets
P20485G/BC5U103	1x Twin 13A Switched RCD Socket
P20485G/BC5U203	2x Twin 13A Switched RCD Sockets

Other options are available. Please contact a member of our sales team for more information.



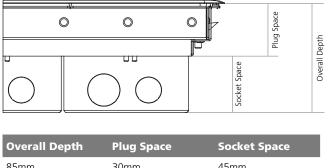
20A Series Floor Box (Separate Box Bases)

The 20A Series floor box is suitable for raised floor applications and is divided in to 3 or 4 separate removeable compartments. The 20A Series floor boxes are designed for use in commercial environments and provide an efficient fast-fit on site installation and ease of access to power sockets and data.

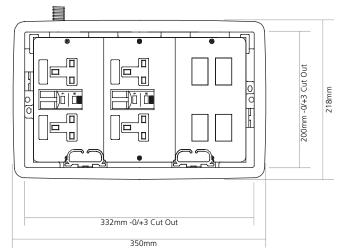
Features include:

- Separate removeable box bases.
- 3 and 4 compartment boxes are the same overall size.
- Accessory plate sizes:
 - 3 compartment: 100mm x 175mm.
 - 4 compartment: 75mm x 175mm.
- 85mm standard depth (other sizes available, see table).
- Tool free fixing mechanism for fast-fit on site installation.
- Grey lid and trim V0 rated PC/ABS.
- Quick release lid provides easy access to the accessory plates.
- Removeable lid and trim for ease of carpet fitting.
- Low profile floor box surround and non-trip cable outlet brackets designed to comply with BS EN 61534.
- Can be supplied complete with lockable lid.
- Galvanised steel back boxes.
- Can be pre-fitted with socket outlets and Betatrak Tap-off unit.





Overall Depth	Plug Space	Socket Space
85mm	30mm	45mm
100mm	45mm	45mm
115mm	60mm	45mm
130mm	75mm	45mm







Empty 20A Series Floor Box

3 Compartment

Code	Description
PP20A385G	Standard 'Fast-Fit' 85mm Deep
PP20A310G	Standard 'Fast-Fit' 100mm Deep
PP20A311G	Standard 'Fast-Fit' 115mm Deep
PP20A313G	Standard 'Fast-Fit' 130mm Deep
Individual compartme	ents 45mm deep
PPS2034A	Single Width
PPS203D4A	Double Width
Add Suffix /KL	Option to add a Key Lock to a floor box lid

4 Compartment

Code	Description
PP20A485G	Standard 'Fast-Fit' 85mm Deep
PP20A410G	Standard 'Fast-Fit' 100mm Deep
PP20A411G	Standard 'Fast-Fit' 115mm Deep
PP20A413G	Standard 'Fast-Fit' 130mm Deep
Individual compartment	s 45mm deep
PPS2044A	Single Width
PPS204D4A	Double Width
Add Suffix /KL	Option to add a Key Lock to a floor box lid

Standard Earth Pre-wired 20A Series Floor Box

c/w 3m or 5m 32A unfused Betatrak Tap-off

3 Compartment

Code	Description	C
3m Standard Earth Wh	ite Plug	31
P20A385GBS3U104	1x Twin 13A Switched Socket	P2
P20A385GBS3U202	2x Twin 13A Switched Sockets	P2
P20A385GBS3U108	1x Twin 13A Switched RCD Socket	P2
P20A385GBS3U209	2x Twin 13A Switched RCD Sockets	P2
5m Standard Earth Wh	ite Plug	5r
P20A385GBS5U103	1x Twin 13A Switched Socket	P2
P20A385GBS5U202	2x Twin 13A Switched Sockets	P2
P20A385GBS5U104	1x Twin 13A Switched RCD Socket	P2
P20A385GBS5U204	2x Twin 13A Switched RCD Sockets	P2

4 Compartment

	omparanent	
Co	de	Description
3m	Standard Earth White	e Plug
P20	A485GBS3U101	1x Twin 13A Switched Socket
P20)A485GBS3U204	2x Twin 13A Switched Sockets
P20	A485GBS3U103	1x Twin 13A Switched RCD Socket
P20)A485GBS3U206	2x Twin 13A Switched RCD Sockets
5m	Standard Earth White	e Plug
P20	A485GBS5U100	1x Twin 13A Switched Socket
P20)A485GBS5U204	2x Twin 13A Switched Sockets
P20	A485GBS5U101	1x Twin 13A Switched RCD Socket
P20	A485GBS5U205	2x Twin 13A Switched RCD Sockets

Clean Earth Pre-wired 20A Series Floor Box

c/w 3m or 5m 32A unfused Betatrak Tap-off

3 Compartment

Code	Description
3m Clean Earth Red Plu	g
P20A385GBC3U100	1x Twin 13A Switched Socket
P20A385GBC3U204	2x Twin 13A Switched Sockets
P20A385GBC3U103	1x Twin 13A Switched RCD Socket
P20A385GBC3U206	2x Twin 13A Switched RCD Sockets
5m Clean Earth Red Plu	g
P20A385GBC5U101	1x Twin 13A Switched Socket
P20A385GBC5U201	2x Twin 13A Switched Sockets
P20A385GBC5U102	1x Twin 13A Switched RCD Socket
P20A385GBC5U202	2x Twin 13A Switched RCD Sockets

4 Compartment

Code	Description
3m Clean Earth Red Pl	ug
P20A485GBC3U100	1x Twin 13A Switched Socket
P20A485GBC3U202	2x Twin 13A Switched Sockets
P20A485GBC3U102	1x Twin 13A Switched RCD Socket
P20A485GBC3U203	2x Twin 13A Switched RCD Sockets
5m Clean Earth Red Pl	ug
P20A485GBC5U100	1x Twin 13A Switched Socket
P20A485GBC5U201	2x Twin 13A Switched Sockets
P20A485GBC5U101	1x Twin 13A Switched RCD Socket
P20A485GBC5U202	2x Twin 13A Switched RCD Sockets





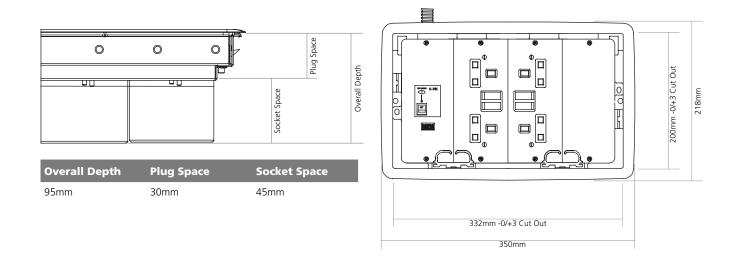
20A Series Floor Box (Separate Base Boxes) with Single RCD or RCBO

The 20A Series floor box with single RCD or RCBO protection is suitable for raised floor applications and is divided in to 2 or 3 separate removeable compartments. The 20A Series floor boxes are designed for use in commercial environments and provide an efficient fast-fit on site installation and ease of access to power sockets and data.

Features include:

- Fitted with a din rail mounted 40A RCD or 20A RCBO.
- Separate removeable box bases.
- Accessory plate sizes:
 - 4 compartment: 75mm x 175mm.
- 95mm standard depth (other sizes available).
- Tool free fixing mechanism for fast-fit on site installation.
- Grey lid and trim V0 rated PC/ABS.
- Quick release lid provides easy access to the accessory plates.
- Removeable lid and trim for ease of carpet fitting.
- Low profile floor box surround and non-trip cable outlet brackets designed to comply with BS EN 61534.
- Can be supplied complete with lockable lid.
- Galvanised steel back boxes.
- Can be pre-fitted with RCD or RCBO, socket outlets and Betatrak Tap-off unit.





Note:

- These boxes are 4 compartment but use the first compartment to house the RCD/RCBO.
- Removable compartments are double width for 1 twin socket and triple width for 2 twin sockets.
- Compartment sizes are 75mm x 175mm.



Standard Earth Pre-wired RCD/RCBO Floor Box

c/w 3m or 5m 32A unfused Betatrak Tap-off

4 Compartment

Code	Description	RCD/RCBO		
3m Standard Earth White Plug				
P20A495GBS3U200	1x Twin 13A Switched Socket	40A RCD		
P20A495GBS3U308	2x Twin 13A Switched Sockets	40A RCD		
P20A495GBS3U207	1x Twin 13A Switched Socket	20A RCBO		
P20A495GBS3U301	2x Twin 13A Switched Sockets	20A RCBO		

Code	Description	RCD/RCBO		
5m Standard Earth White Plug				
P20A495GBS5U204	1x Twin 13A Switched Socket	40A RCD		
P20A495GBS5U305	2x Twin 13A Switched Sockets	40A RCD		
P20A495GBS5U203	1x Twin 13A Switched Socket	20A RCBO		
P20A495GBS5U304	2x Twin 13A Switched Sockets	20A RCBO		

Clean Earth Pre-wired RCD/RCBO Floor Box

c/w 3m or 5m 32A unfused Betatrak Tap-off

4 Compartment

Code	Description	RCD/RCBO	Code	Description	RCD/RC
3m Clean Earth Red F	lug		5m Clean Earth Red F	Plug	
P20A495GBC3U202	1x Twin 13A Switched Socket	40A RCD	P20A495GBC5U201	1x Twin 13A Switched Socket	40A RCD
P20A495GBC3U302	2x Twin 13A Switched Sockets	40A RCD	P20A495GBC5U301	2x Twin 13A Switched Sockets	40A RCD
P20A495GBC3U203	1x Twin 13A Switched Socket	20A RCBO	P20A495GBC5U202	1x Twin 13A Switched Socket	20A RCB
P20A495GBC3U303	2x Twin 13A Switched Sockets	20A RCBO	P20A495GBC5U302	2x Twin 13A Switched Sockets	20A RCB



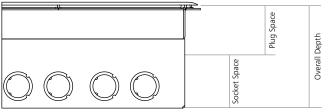


99 Series Floor Box (Single Base Box)

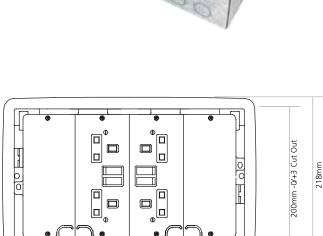
The 99 Series floor box is suitable for raised and screed floor applications and is divided in to 3 or 4 compartments. The 99 Series floor boxes are designed for use in commercial environments and provides easy access to power sockets and data.

Features include:

- One piece box base divided in to 3 or 4 compartments.
- 3 and 4 compartment boxes are the same overall size.
- Accessory plate sizes:
 - 3 compartment: 100mm x 175mm.
 - 4 compartment: 75mm x 175mm.
- 85mm standard depth (other sizes available).
- Floor boxes for raised floors are fitted by screw-fixing to the floor tile.
- Screed floor boxes come complete with jacking legs which allow 10mm final adjustment.
- Grey lid and trim V0 rated PC/ABS.
- Quick release lid provides easy access to the accessory plates.
- Removeable lid and trim for ease of carpet fitting.
- Low profile floor box surround and non-trip cable outlet brackets designed to comply with BS EN 61534.
- Can be supplied complete with lockable lid.
- Galvanised steel back box and mounting frame.
- Raised floor versions can be pre-fitted with socket outlets and Betatrak Tap-off unit.



Overall Depth	Plug Space	Socket Space
85mm	32mm	45mm



4 Compartment

Code	Description
PP99485G	Raised Floor, 85mm Deep
PPS99485G	Screed Floor, 85mm Deep
Add Suffix /KL	Option to add a Key Lock to a floor box lid

332mm -0/+3 Cut Out



Empty 99 Series Floor Box

Code	Description
PP99385G	Raised Floor, 85mm Deep
PPS99385G	Screed Floor, 85mm Deep
Add Suffix /KL	Option to add a Key Lock to a floor box lid





90 Series Stainless Steel Floor Box (Single Box Base)

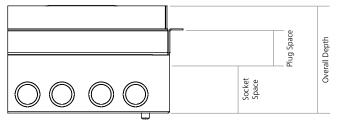
The 90 Series floor box is suitable for raised and screed floor applications and is divided in to 3 or 4 compartments. The 90 Series floor boxes are designed for use in commercial environments and provides easy access to power sockets and data.

Features include:

- One piece box base divided in to 3 or 4 compartments.
- 3 and 4 compartment boxes are the same overall size.
- Accessory plate sizes:
 - 3 compartment: 100mm x 175mm.
 - 4 compartment: 75mm x 175mm.
- 110mm standard depth (other sizes available).
- Floor boxes for raised floors are fitted by screwfixing to the floor tile.
- Screed floor boxes come complete with jacking legs which allow 10mm final adjustment.
- Brushed stainless steel lid and tramline trim.
- Lids have a 23mm recess for a marble or stone infill.
- Galvanised steel back box and mounting frame.
- Raised floor versions can be pre-fitted with socket outlets and Betatrak Tap-off unit.
- Supplied complete with ring pull lifting handles.







Overall Depth	Plug Space	Socket Space
110mm	32mm	45mm

Empty 90 Series Floor Box

3 Compartment		4 Compartment	
Code	Description	Code	Description
PP90385SS/23	Raised Floor, 110mm Deep	PP9048555/23	Raised Floor, 110mm Deep
PPS90385SS/23	Screed Floor, 110mm Deep	PPS90485SS/23	Screed Floor, 110mm Deep

Slab Boxes



23 Series Slab Box Power Distribution

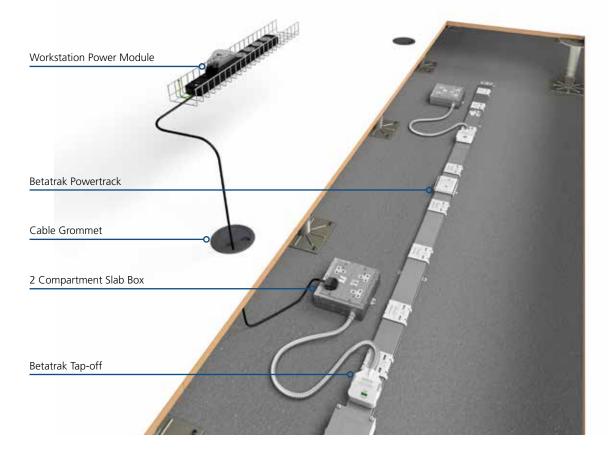
CMD Ltd's 23 Series Slab Box is a power distribution system installed under a commercial office raised floor. There are four slab box variants available, designed to provide a straightforward on site installation. When used in conjunction with our range of floor grommets it is an alternative to a floor box providing ease of access to power sockets and data.

The benefits of using a CMD 23 Series Slab Box:

- Multiple options available designed to meet your specification requirements.
- Manufactured to comply with BS 5733 General requirements for electrical accessories.
- All slab boxes for raised floors can be pre-wired with a Betatrak Tap-off for ease of installation.

Features of a 23 Series Slab Box:

- Supplied with retractable fixing feet.
- Complete with 20/25mm knockouts on two sides.
- Multiple compartment slab boxes are supplied with circuit segregation dividers fitted.
- Manufactured from 0.9mm galvanised steel.
- One and three compartment slab boxes use 3 Compartment size accessory plates.
- Two and four compartment slab boxes use 4 Compartment size accessory plates.







23 Series Slab Box Power Distribution

Dimensions:

- 1 Compartment: 143mm x 200mm x 60mm deep.
- 2 Compartment: 182mm x 200mm x 60mm deep.
- 3 Compartment: 332mm x 200mm x 60mm deep.
- 4 Compartment: 332mm x 200mm x 60mm deep.

0.9mm galvanised steel

20/25mm entry knockouts

Retractable fixing brackets

23 Series 1 Compartment Slab Box



23 Series 3 Compartment Slab Box







23 Series 4 Compartment Slab Box



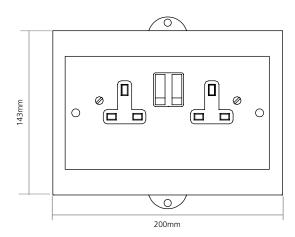
Slab Boxes



Features include:

- Retractable fixing feet.
- Can be used in conjunction with our floor grommets.
- Overall dimension 143 x 200 x 60mm deep.
- The box base has 20mm and 25mm conduit knockouts.
- The box base is manufactured from galvanised steel.
- This slab box utilises 3 compartment plates.





Empty 23 Series Slab Box

1 Compartment

Code	Description
PPS2315OS	60mm Deep c/w Retractable Fixing Feet

Standard Earth Pre-Wired Slab Box

c/w 3m or 5m 32A unfused Betatrak Tap-off

1 Compartment

Code	Description
P2315OS/BS3U100	1x Twin Switched Socket, 3m Standard Earth White Plug
P2315OS/BS5U102	1x Twin Switched Socket, 5m Standard Earth White Plug



Note: The slab box height does not include the socket plates.

Clean Earth Pre-Wired Slab Box

c/w 3m or 5m 32A unfused Betatrak Tap-off

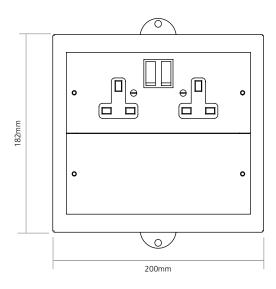
Code	Description
P2315OS/BC3U105	1x Twin Switched Socket, 3m Clean Earth Red Plug
P2315OS/BC5U107	1x Twin Switched Socket, 5m Clean Earth Red Plug



23 Series 2 Compartment Slab Box

Features include:

- Retractable fixing feet.
- Can be used in conjunction with our floor grommets.
- Overall dimension 182 x 200 x 60mm deep.
- The box base has 20mm and 25mm conduit knockouts.
- The box base is manufactured from galvanised steel.
- This slab box utilises 4 compartment plates.
- Dividers are provided to separate services.



Empty 23 Series Slab Box

2 Compartment

Code	Description
PPS2325OS	60mm Deep c/w Retractable Fixing Feet

Standard Earth Pre-Wired Slab Box

c/w 3m or 5m 32A unfused Betatrak Tap-off

2 Compartment

Code	Description
P2325OS/BS3U100	1x Twin Switched Socket, 3m Standard Earth White Plug
P2325OS/BS3U200	2x Twin Switched Sockets, 3m Standard Earth White Plug
P2325OS/BS5U100	1x Twin Switched Socket, 5m Standard Earth White Plug
P2325OS/BS5U200	2x Twin Switched Sockets, 5m Standard Earth White Plug





Note: The slab box height does not include the socket plates.

Clean Earth Pre-Wired Slab Box

c/w 3m or 5m 32A unfused Betatrak Tap-off

Code	Description
P2325OS/BC3U100	1x Twin Switched Socket, 3m Clean Earth Red Plug
P2325OS/BC3U200	2x Twin Switched Sockets, 3m Clean Earth Red Plug
P2325OS/BC5U100	1x Twin Switched Socket, 5m Clean Earth Red Plug
P2325OS/BC5U200	2x Twin Switched Sockets, 5m Clean Earth Red Plug

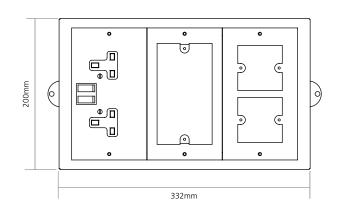
Slab Boxes

23 Series 3 Compartment Slab Box

Features include:

- Retractable fixing feet.
- Can be used in conjunction with our floor grommets.
- Overall dimension 332 x 200 x 60mm deep.
- The box base has 20mm and 25mm conduit knockouts.
- The box base is manufactured from galvanised steel.
- This slab box utilises 3 compartment plates.
- Dividers are provided to separate services.





Empty 23 Series Slab Box

3 Compartment

Code	Description
PPS2335OS	60mm Deep c/w Retractable Fixing Feet

Standard Earth Pre-Wired Slab Box

c/w 3m or 5m 32A unfused Betatrak Tap-off

3 Compartment

Code	Description
P2335OS/BS3U100	1x Twin Switched Socket, 3m Standard Earth White Plug
P2335OS/BS3U200	2x Twin Switched Sockets, 3m Standard Earth White Plug
P2335OS/BS5U100	1x Twin Switched Socket, 5m Standard Earth White Plug
P2335OS/BS5U200	2x Twin Switched Sockets, 5m Standard Earth White Plug

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Note: The slab box height does not include the socket plates.

Clean Earth Pre-Wired Slab Box

c/w 3m or 5m 32A unfused Betatrak Tap-off

Code	Description
P2335OS/BC3U100	1x Twin Switched Socket, 3m Clean Earth Red Plug
P2335OS/BC3U200	2x Twin Switched Sockets, 3m Clean Earth Red Plug
P2335OS/BC5U100	1x Twin Switched Socket, 5m Clean Earth Red Plug
P2335OS/BC5U200	2x Twin Switched Sockets, 5m Clean Earth Red Plug

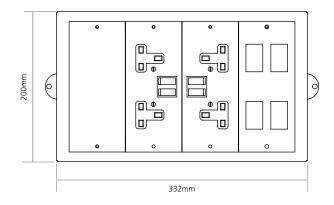


23 Series 4 Compartment Slab Box

Features include:

- Retractable fixing feet.
- Can be used in conjunction with our floor grommets.
- Overall dimension 332 x 200 x 60mm deep.
- The box base has 20mm and 25mm conduit knockouts.
- The box base is manufactured from galvanised steel.
- This slab box utilises 4 compartment plates.
- Dividers are provided to separate services.





Empty 23 Series Slab Box

4 Compartment

Code	Description
PPS2345OS	60mm Deep c/w Retractable Fixing Feet

Standard Earth Pre-Wired Slab Box

c/w 3m or 5m 32A unfused Betatrak Tap-off

4 Compartment

Code	Description
P2345OS/BS3U100	1x Twin Switched Socket, 3m Standard Earth White Plug
P2345OS/BS3U200	2x Twin Switched Sockets, 3m Standard Earth White Plug
P2345OS/BS5U100	1x Twin Switched Socket, 5m Standard Earth White Plug
P2345OS/BS5U200	2x Twin Switched Sockets, 5m Standard Earth White Plug

Note: The slab box height does not include the socket plates.

Clean Earth Pre-Wired Slab Box

c/w 3m or 5m 32A unfused Betatrak Tap-off

Code	Description
P2345OS/BC3U100	1x Twin Switched Socket, 3m Clean Earth Red Plug
P2345OS/BC3U200	2x Twin Switched Sockets, 3m Clean Earth Red Plug
P2345OS/BC5U100	1x Twin Switched Socket, 5m Clean Earth Red Plug
P2345OS/BC5U200	2x Twin Switched Sockets, 5m Clean Earth Red Plug

41

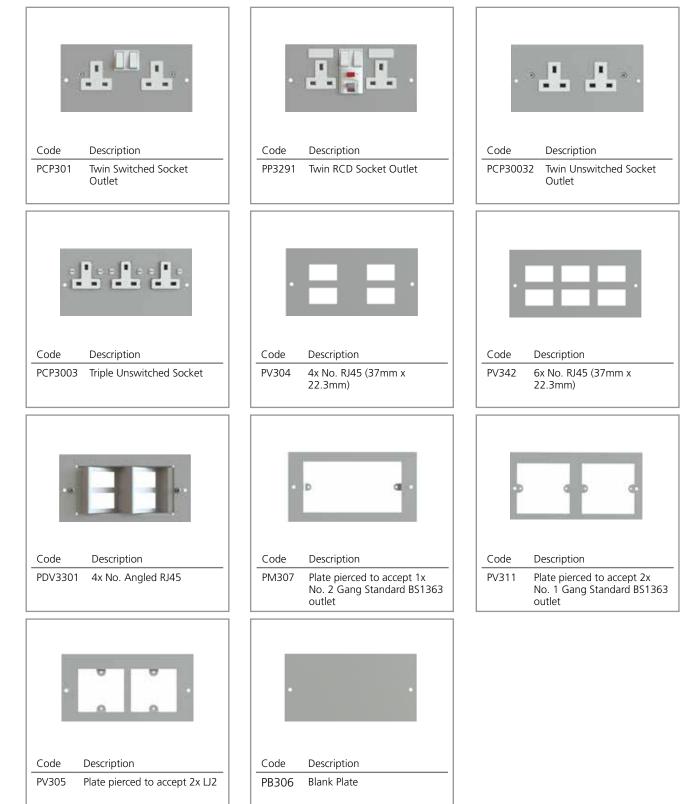
Accessory Plates



3 Compartment Accessory Plates

Select from our wide range of serviced power and unserviced data options. Accessory plates are common to most ranges - one piece, individual, screed and stainless steel floor boxes and slab floor boxes.

Plate sizes - 100mm x 175mm. For use in floor boxes and slab boxes with 1 or 3 compartments.

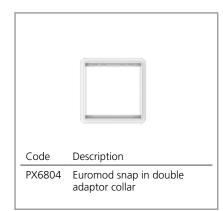


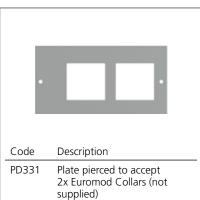
distribution



3 Compartment Accessory Plates

All twin sockets have a dual earth facility to enable compliance to BS 7671: Regulation 543.7.1.204. Accessory plates shown are the most widely specified but other options are available.





Off-set Socket Plates

CMD have versions of our socket plates with sockets off-set to either the left or the right to help prevent cable clashes.

For more information please see the Floor Box Guidance section included in this catalogue.

Code	Description	Pictured
PCP301	Twin Switched Socket Outlet	\checkmark
PP3291	Twin RCD Socket Outlet	✓
PCP301C	Clean Earth Twin Switched Socket Outlet - Red Plate	-
PP3291C	Clean Earth Twin RCD Socket Outlet - Red Plate	-
PCP30032	Twin Unswitched Socket Outlet	\checkmark
PCP30032C	Clean Earth Twin Unswitched Socket Outlet - Red Plate	-
PCP3003	Triple Unswitched Socket Outlet	\checkmark
PCP3003C	Clean Earth Triple Unswitched Socket Outlet - Red Plate	-
PP301N	Twin Switched Socket Outlet Non-Standard - Wandsworth	-
PV304	4x No. RJ45 (37mm x 22.3mm)	✓
PDV3301	4x No. Angled RJ45	\checkmark
PV342	6x No. RJ45 (37mm x 22.3mm)	✓
PX3210	White LJU6C size blank data cover	-
PM307	Plate Pierced to Accept 1x No. 2 - Gang Standard BS1363 Outlet	✓
PV311	Plate Pierced to Accept 2x No. 1 - Gang Standard BS1363 Outlet	\checkmark
PV305	Plate Pierced to Accept 2x U2	\checkmark
PD331	Plate Pierced to Accept 2x Euromod Collars (not supplied)	✓
PX6804	Euromod Snap in Double Adaptor Collar	~
PD3316	Angled Plate Pierced to Accept 2x Euromod Collars (not supplied)	-
PB306	Blank Plate	✓



Consideration is required when configuring power and data plates as the design of the associated leads, plugs and sockets can vary depending on the manufacturer. This may cause the cables to clash and/or prevent the floor box lid from closing. For further information, please discuss with a member of our sales team.



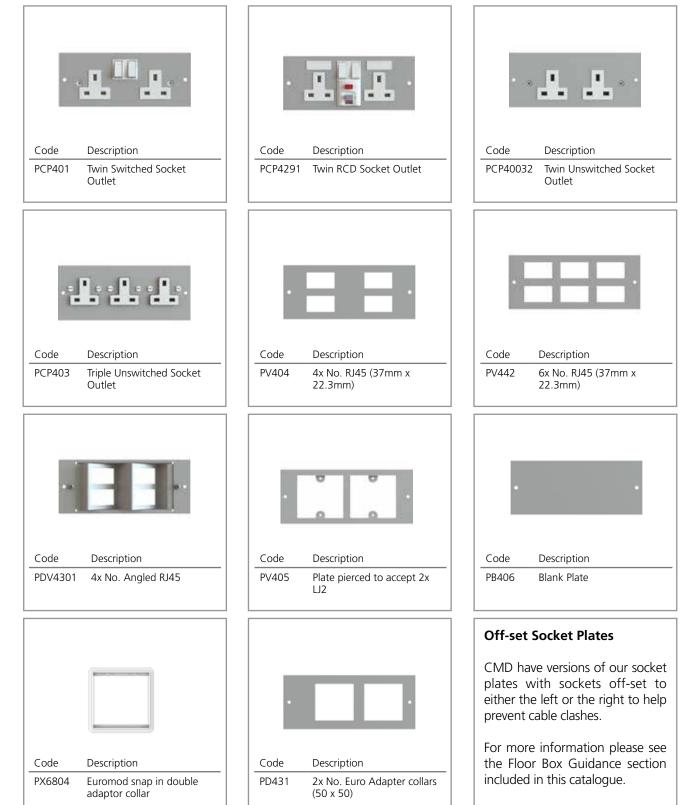
Accessory Plates



4 Compartment Accessory Plates

Select from our wide range of serviced power and unserviced data options, 4 compartment range for single box base, separate box base, screed and stainless floor boxes, and slab boxes, 75mm wide.

Plate sizes - 75mm x 175mm. For use in floor boxes and slab boxes with 2 or 4 compartments.





Accessory Plates

4 Compartment Accessory Plates

All twin sockets have a dual earth facility to enable compliance to BS 7671: Regulation 543.7.1.204. Accessory plates shown are the most widely specified but other options are available.

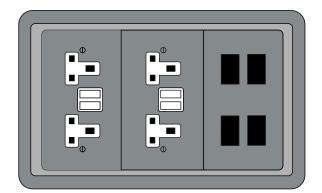
Code	Description	Pictured
PCP401	Twin Switched Socket Outlet	✓
PP4291	Twin RCD Socket Outlet	✓
PCP401C	Clean Earth Twin Switched Socket Outlet - Red Plate	-
PP4291C	Clean Earth Twin RCD Socket Outlet - Red Plate	-
PCP40032	Twin Unswitched Socket Outlet	✓
PCP40032C	Clean Earth Twin Unswitched Socket Outlet - Red Plate	-
PCP403	Triple Unswitched Socket Outlet	✓
PCP403C	Clean Earth Triple Unswitched Socket Outlet - Red Plate	-
PP401N	Twin Switched Socket Outlet - Non-standard Wandsworth	-
PV404	4x No. RJ45 (37mm x 22.3mm)	\checkmark
PDV4301	4x No. Angled RJ45	✓
PV442	6x No. RJ45 (37mm x 22.3mm)	✓
PX3210	White LJU6C Size Blank Data Cover	-
PV405	Plate Pierced to Accept 2 - LJ2	\checkmark
PD431	2x No. Euro Adapter Collars (50 x 50)	✓
PX6804	Euromod Snap in Double Adaptor Collar	\checkmark
PD4316	Angled Plate Pierced to Accept 2x Euromod Collars (not supplied)	-
PB406	Blank Plate	\checkmark

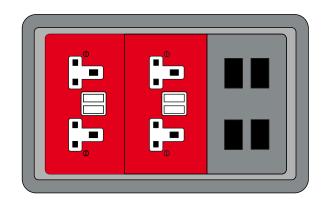


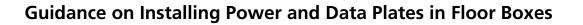
Consideration is required when configuring power and data plates as the design of the associated leads, plugs and sockets can vary depending on the manufacturer. This may cause the cables to clash and/or prevent the floor box lid from closing. For further information, please discuss with a member of our sales team.

3 Compartment and 4 Compartment Accessory Plate Colours

All Standard Earth power plates are finished in textured matt grey paint (RAL7004). All Clean Earth power plates are supplied painted textured matt red (RAL3001). All Blank and all Data plates are finished in textured matt grey paint (RAL7004).







Consideration is required when configuring power and data plates as the design of the associated leads, plugs and sockets can vary depending on the manufacturer. This may cause the cables to clash and/or prevent the floor box lid from closing.

Examples of power and data outlet conflicts:

- next to each other.
- twin switched sockets.

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The below image shows these instances.



3 Compartment Offset Socket Plates

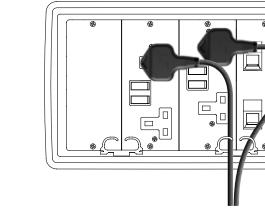
•		
Code	Description	Pictured
PLT77650	Twin Switched Socket Plate Offset Right	-
PLT98727	Twin Switched Socket Plate Offset Left	-
PP3291OFR	Twin Switched RCD Socket Plate Offset Right	-
PP3291OFL	Twin Switched RCD Socket Plate Offset Left	-
PLT77652	Clean Earth Twin Switched Socket Plate Offset Right – Red Plate	-
PLT98726	Clean Earth Twin Switched Socket Plate Offset Left – Red Plate	-
PP3291COFR	Clean Earth Twin Switched RCD Socket Plate Offset Right – Red Plate	-
PP3291COFL	Clean Earth Twin Switched RCD Socket Plate Offset Left – Red Plate	-

4 Compartment Offset Socket Plates

Code	Description	Pictured
PLT98097	Twin Switched Socket Plate Offset Right	-
PLT98716	Twin Switched Socket Plate Offset Left	-
PP42910FR	Twin Switched RCD Socket Plate Offset Right	-
PP42910FL	Twin Switched RCD Socket Plate Offset Left	-
PLT98724	Clean Earth Twin Switched Socket Plate Offset Right – Red Plate	-
PLT98725	Clean Earth Twin Switched Socket Plate Offset Left – Red Plate	-
PP4291COFR	Clean Earth Twin Switched RCD Socket Plate Offset Right – Red Plate	-
PP4291COFL	Clean Earth Twin Switched RCD Socket Plate Offset Left – Red Plate	-

Illustrative Offset Socket Plates





Solution:

1. When two twin switched socket outlets are positioned Using offset power sockets can alleviate instances of plug top clashes and assist with the routing of power cables to 2. When a data plate is being installed next to the 13A avoid interference with the data installation within the floor



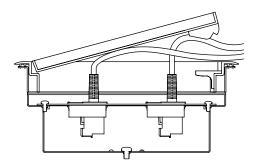


Floor Box Guidance

Guidance on Installing Power and Data Plates in Floor Boxes

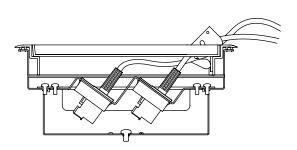
Data installation guidance.

Due to the differing data cable bend radii specifications a standard flat data plate may not always be suitable. This is because it may not allow the floor box lid to be closed with the outgoing data cables installed.



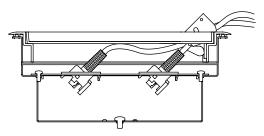
Possible solutions:

1. Use an angled data plate.

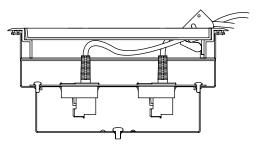




2. Use a flat data plate with angled data sockets.



3. Use a deeper floor box with additional plug top space.

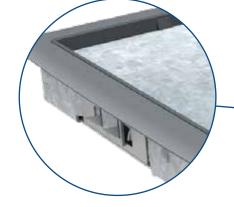


Note: CMD's angled plates are only available with 4 data cut outs. A 6 data cut out flat plate is available if required.

Note: The standard 45mm deep back box on each floor box is suitable for Cat6a but this is subject to the cable manufacturers specification as large diameter cables may require extra space in the back box. Floor boxes with extra back box space are available.



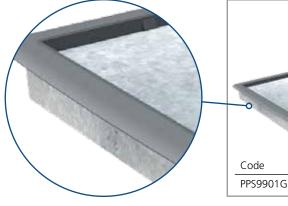
20 and 20A Series Floor Box Lid and Trim





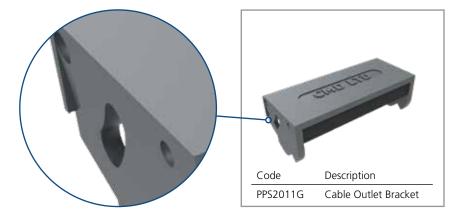
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99 Series Floor Box Lid and Trim

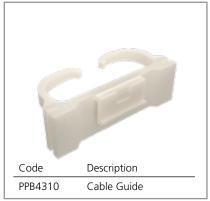




20, 20A and 99 Series Cable Outlet Brackets



20, 20A and 99 Series Cable Guide



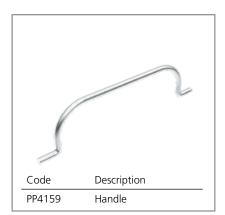




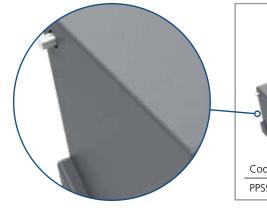


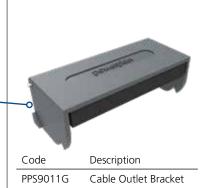
20, 20A and 99 Series Handles

Floor Box Spares



90 Series Cable Outlet Bracket (CMD Legacy Floor Box)







Code	Description	
20 and 20A Floor Box Spares		
PPS2001G	Lid and Trim Assembly	
PPS2011G	Cable Outlet Bracket	
PPB4310	Cable Guide	
PPB4159	Handle Assembly	
PPS2030	Hinge Assembly (Pair)	
99 Series Floor Box Spares		
PPS9901G	Lid and Trim Assembly	
PPS2011G	Cable Outlet Bracket	
PPB4310	Cable Guide	
PPB4159	Handle Assembly	
PPS2030	Hinge Assembly (Pair)	
90 Series Floor Box S	pares (CMD Legacy Floor Box)	
PPS9011G	Cable Outlet Bracket	

Cable Grommet



Cable Grommet Power Distribution

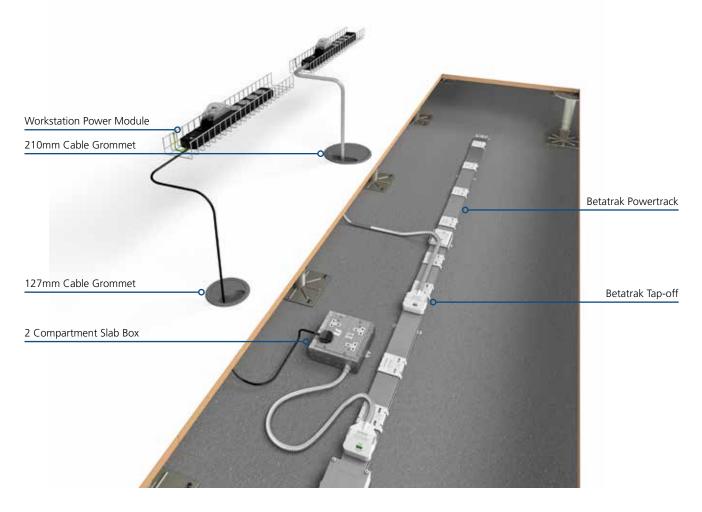
CMD Ltd offer two sizes of cable grommets. They are designed for use in commercial environments and provide an efficient fast-fit on site installation and ease of access to power and data services that are contained within or pass through a raised floor. The cable grommets available are:

- 23 Series 127mm diameter cut out (140mm overall diameter).
- 23 Series 210mm diameter cut out (230mm overall diameter).

The benefits of using a CMD cable grommet:

- Multiple options available designed to meet your specification requirements.
- Designed to comply with BS EN 61534 Traffic Load Tests.
- Low profile Cable Hive surround to reduce the risk of tripping as per BS EN 61534-22 Powertrack systems. Particular requirements for powertrack systems intended for onfloor or underfloor installation, section 9.
- Can be installed in seconds without the use of tools.







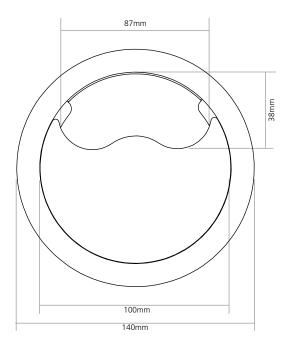
Cable Grommet (127mm Cut Out)

The 23 Series cable grommet is suitable for raised floor applications. The 23 series cable grommets are designed for use in commercial environments and provide an efficient fast-fit on site installation and ease of access to power and or data services within the floor void.

Features include:

- Push down, tool free fixing mechanism for fast-fit on site installation.
- Grey RAL7031 lid and trim V0 rated PC/ABS.
- Lid has integral carpet gripper spikes.
- Rotatable lid provides several outlet options including a single large slot.
- Low profile surround.
- Can accommodate up to 4x 20mm or 3x 25mm diameter conduits
- Recommended for installation in light traffic areas.





127mm -0/+3 Cut Out

Code PCFG235G Description 127mm Grommet

Maximum number of conduits when lid is in place.

- 8x 16mm Conduit
- 4x 20mm Conduit
- 3x 25mm Conduit
- 2x 32mm Conduit

Cable Grommet



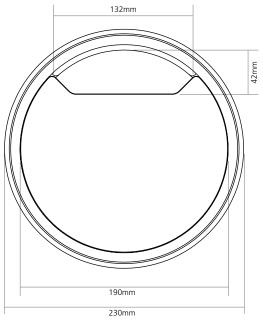
Cable Grommet (210mm Cut Out)

The 23 Series cable grommet is suitable for raised floor applications. The 23 Series cable grommets are designed for use in commercial environments and provide an efficient fast-fit on site installation and ease of access to power and/ or data services within or passing through a raised floor.

Features include:

- Push down, tool free fixing mechanism for fast-fit on site installation.
- Grey RAL7031 lid and trim V0 rated PC/ABS.
- Lid has integral carpet gripper spikes.
- Rotatable lid provides several outlet options including a single large slot or three apertures.
- Low profile surround.
- Can accommodate up to 8x 20mm or 5x 25mm diameter conduits.
- Recommended for installation in light traffic areas.





210mm -0/+3 Cut Out

Code PCFG238G Description 210mm Grommet

Maximum number of conduits when lid is in place.

- 12x 16mm Conduit
- 8x 20mm Conduit
- 4x 25mm Conduit
- 3x 32mm Conduit





Cable Hives[®]

Cable Hive Power Distribution

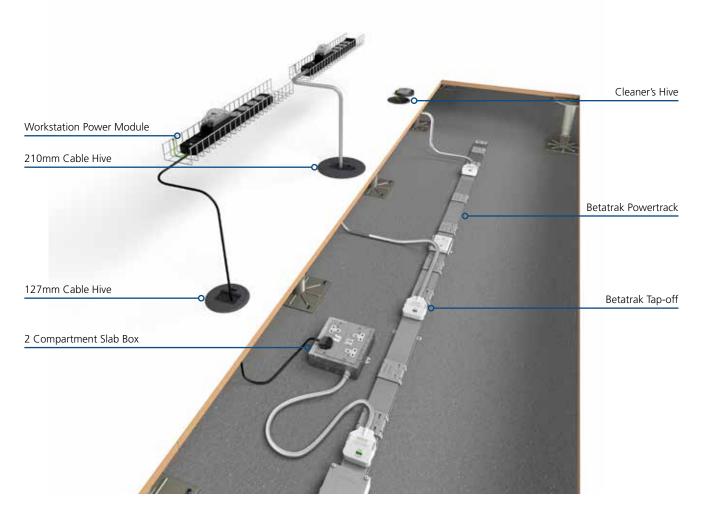
CMD Ltd offer two sizes of Cable Hive. They are designed for use in commercial environments and provide an efficient fast-fit on site installation and ease of access to power and data services that are contained within or pass through a raised floor. The Cable Hives available are:

- 26 Series 127mm diameter cut out (140mm overall diameter).
- 21 Series 210mm diameter cut out (230mm overall diameter).

The 26 and 21 Series fast-fit Cable Hives are suitable for raised floor applications.

The benefits of using a CMD Cable Hive:

- Multiple options available designed to meet your specification requirements.
- Designed to comply with BS EN 61534-22 Powertrack systems. Particular requirements for powertrack systems intended for onfloor or underfloor installation Traffic Load Tests.
- Cable Hives fitted with power sockets can be pre-wired with a Betatrak Tap-off for ease of installation.
- Low profile Cable Hive surround to reduce the risk of tripping as per BS EN 61534-22.
- Installed in seconds with no tools required.
- Carpet can be fitted into a 6.5mm recess in the versions with the tray lid.





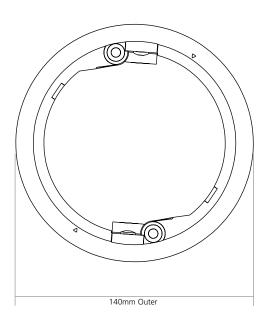
Cable Hive (127mm Cut Out)

The 26 Series cable Hive is suitable for raised floor applications. The 26 Series cable Hive are designed for use in commercial environments and provide an efficient fast-fit on site installation and ease of access to power and data services that are contained within or pass through a raised floor.

Features include:

- Push down, tool free fixing mechanism.
- Grey RAL7031 lid and trim V0 rated PC/ABS.
- Integral carpet gripper spikes pre-fitted to the trim.
- Split lid with soft foam inserts.
- Self-closing lifting handles.
- Low profile surround.
- Can accommodate multiple metal conduits (see table).
- Recommended for installation in light traffic areas.





127mm -0/+3 Cut Out

CodeDescriptionPPHC261G40mm Height Standard Cable Hive

Maximum number of conduits when lid is in place.

- 8x 16mm Conduit
- 4x 20mm Conduit
- 3x 25mm Conduit
- 2x 32mm Conduit





Cable Hives[®]

Cleaner's Hive (127mm Cut Out)

The 26 Series cleaner's Hive is suitable for raised floor applications. The 26 Series cleaner's Hives are designed for use in commercial environments and provide an efficient fast-fit on site installation.

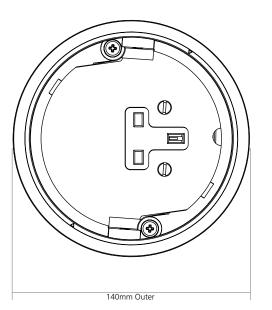
<u>AIA</u>

Features include:

- Screw operated fixing clamps.
- Grey RAL7031 lid and trim V0 rated PC/ABS.
- Integral carpet gripper spikes pre-fitted to the trim.
- Lid with 6.5mm recess for carpet.
- Self-closing lifting handle.
- Low profile surround.
- Can be pre-fitted with a Betatrak Tap-off unit.
- Recommended for installation in light traffic areas.



Note: All Standard Earth power plates are finished in textured matt grey paint (RAL7004).



-				84mm
	 127mm -0/+3	3 Cut Out		

Code	Description
PPH263G	76mm Height Cleaners Hive with 1x Unswitched Socket for On-site Wiring
PPH263G/001	PPH263G Wired with a 3m 32A Unfused Standard Earth Tap-off
PPH263G/002	PPH263G Wired with a 5m 32A Unfused Standard Earth Tap-off

Code	Description
PPH263G/009	PPH263G Wired with a 3m 32A Unfused Clean Earth Tap-off
PPH263G/010	PPH263G Wired with a 5m 32A Unfused Clean Earth Tap-off
PPH263G/SW/87	87mm Height Standard Cleaner's Hive with 1x Switched Socket for On-site Wiring

Note: Clean earth cleaner's Hives wired as L, N & E only.





RCD Protected Cleaner's Hive (127mm Cut Out)

The 26 Series RCD protected cleaner's Hive is suitable for raised floor applications. The 26 Series RCD protected cleaner's Hives are designed for use in commercial environments and provide an efficient fast-fit on site installation.

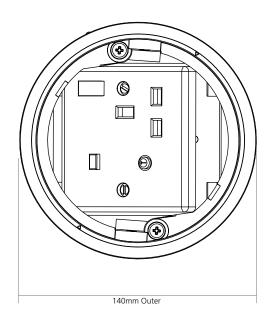
Features include:

- Screw operated fixing clamps.
- Grey RAL7031 lid and trim V0 rated PC/ABS.
- Integral carpet gripper spikes pre-fitted to the trim.
- Lid with 6.5mm recess for carpet.
- Self-closing lifting handle.
- Low profile surround.
- Can be pre-fitted with a Betatrak Tap-off unit.
- Recommended for installation in light traffic areas.

powe

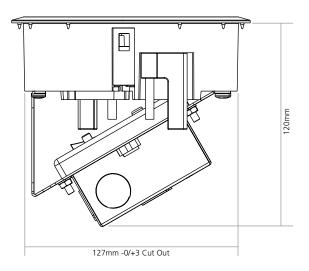
56

Note: All Standard Earth power plates are finished in textured matt grey paint (RAL7004).



Code	Description
PPH263G/RCD/A	120mm Height Cleaners Hive with 1x RCD Socket for On-site Wiring
PPH263G/015	PPH263G/RCD/A Wired with a 3m 32A Unfused Standard Earth Tap-off
PPH263G/007	PPH263G/RCD/A Wired with a 5m 32A Unfused Standard Earth Tap-off





Code	Description
PPH263G/014	PPH263G/RCD/A Wired with a 3m 32A Unfused Clean Earth Tap-off
PPH263G/043	PPH263G/RCD/A Wired With a 5m 32A Unfused Clean Earth Tap-off

Note: Clean earth Power Hives wired as L, N & E only.



Power Hive (127mm Cut Out)

The 26 Series power Hive is suitable for raised floor applications. The 26 Series power Hives are designed for use in commercial environments and provide an efficient fast-fit on site installation.

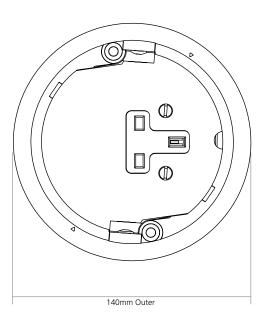
Features include:

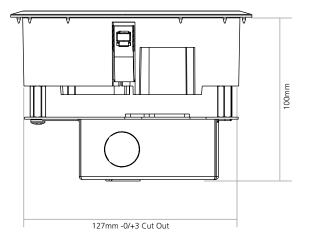
- Push down, tool free fixing mechanism.
- Grey RAL7031 lid and trim V0 rated PC/ABS.
- Integral carpet gripper spikes pre-fitted to the trim.
- Split lid with soft foam inserts.
- Self-closing lifting handles.
- Low profile surround.
- Can be pre-fitted with a Betatrak Tap-off unit.
- Recommended for installation in light traffic areas.



distribution **OWC**

Note: All Standard Earth power plates are finished in textured matt grey paint (RAL7004).





Code	Description
PPHC265G	100mm Height Power Hive with 1x Un- switched Socket for On-site Wiring
PPHC265G/001	PPHC265G Wired with a 3m 32A Unfused Standard Earth Tap-off
PPHC265G/002	PPHC265G Wired with a 5m 32A Unfused Standard Earth Tap-off

Code	Description
PPHC265G/003	PPHC265G Wired with a 3m 32A Unfused Clean Earth Tap-off
PPHC265G/004	PPHC265G Wired with a 5m 32A Unfused Clean Earth Tap-off
PPHC265G/5M	100mm Height Power Hive with 1x Un- Switched 5A Socket for On-site Wiring

Note: Clean earth cleaner's Hives wired as L, N & E only.



RCD Protected Power Hive (127mm Cut Out)

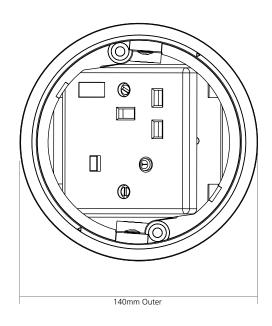
The 26 Series RCD protected power Hive is suitable for raised floor applications. The 26 Series RCD protected power Hives are designed for use in commercial environments and provide an efficient fast-fit on site installation.

Features include:

- Push down, tool free fixing mechanism.
- Grey RAL7031 lid and trim V0 rated PC/ABS.
- Integral carpet gripper spikes pre-fitted to the trim.
- Split lid with soft foam inserts.
- Self-closing lifting handles.
- Low profile surround.
- Can be pre-fitted with a Betatrak Tap-off unit.
- Recommended for installation in light traffic areas.

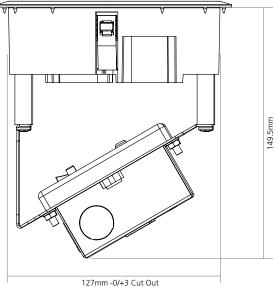
distributio powel

Note: All Standard Earth power plates are finished in textured matt grey paint (RAL7004).



Code	Description
PPHC265G/RCD/A	150mm Height Power Hive with 1x RCD Socket for On-site Wiring
CH6139298	PPHC265G/RCD/A Wired with a 3m 32A Unfused Standard Earth Tap-off
CH2698585	PPHC265G/RCD/A Wired with a 5m 32A Unfused Standard Earth Tap-off







Cable Hive (210mm Cut Out)

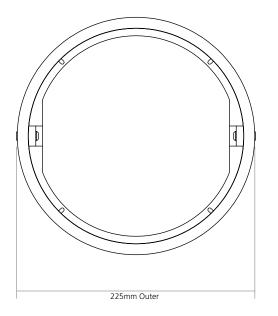
The 21 Series cable Hive is suitable for raised floor applications. The 21 Series cable Hive are designed for use in commercial environments and provide an efficient fast-fit on site installation and ease of access to power and data services that are contained within or pass through a raised floor.

Features include:

- Push down, tool free fixing mechanism.
- Grey RAL7031 lid and trim V0 rated PC/ABS.
- Integral carpet gripper spikes pre-fitted to the trim.
- Split lid with soft foam inserts.
- Self-closing lifting handles.
- Low profile surround.
- Can accommodate multiple metal conduits (see table).
- Recommended for installation in light traffic areas.







 Code
 Description

 PPGC211G
 40mm Height Large Cable Hive

210mm -0/+3 Cut Out

Maximum number of conduits when lid is in place.

- 16x 16mm Conduit
- 9x 20mm Conduit
- 5x 25mm Conduit
- 3x 32mm Conduit



Power Hive (210mm Cut Out)

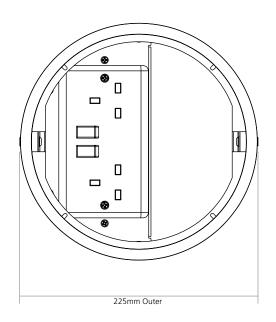
The 21 Series power Hive is suitable for raised floor applications. The 21 Series power Hives are designed for use in commercial environments and provide an efficient fast-fit on site installation.

Features include:

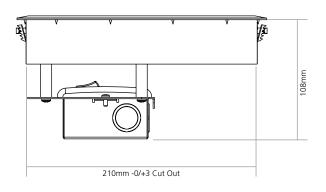
- Push down, tool free fixing mechanism.
- Grey RAL7031 lid and trim V0 rated PC/ABS.
- Integral carpet gripper spikes pre-fitted to the trim.
- Split lid with soft foam inserts.
- Self-closing lifting handles.
- Low profile surround.
- Can be pre-fitted with a Betatrak Tap-off unit.
- Recommended for installation in light traffic areas.



Note: All Standard Earth power plates are finished in textured matt grey paint (RAL7004).



Code PPGC212G Description 108mm Height Large Power Cable Hive with Twin 13A Switched Socket





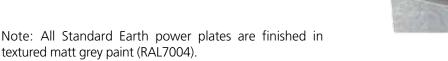
Cable Hives[®]

RCD Protected Power Hive (210mm Cut Out)

The 21 Series RCD protected power Hive is suitable for raised floor applications. The 21 Series RCD protected power Hives are designed for use in commercial environments and provide an efficient fast-fit on site installation.

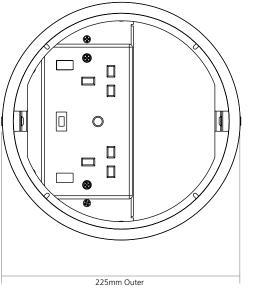
Features include:

- Push down, tool free fixing mechanism.
- Grey RAL7031 lid and trim V0 rated PC/ABS.
- Integral carpet gripper spikes pre-fitted to the trim.
- Split lid with soft foam inserts.
- Self-closing lifting handles.
- Low profile surround.
- Can be pre-fitted with a Betatrak Tap-off unit.
- Recommended for installation in light traffic areas.

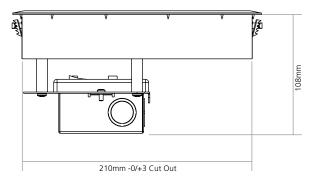




textured matt grey paint (RAL7004).



CodeDescriptionPPGC212G/RCD108mm Height Large Power Cable Hive
with Twin 13A Switched RCD Socket





Data Cable Hive (210mm Cut Out)

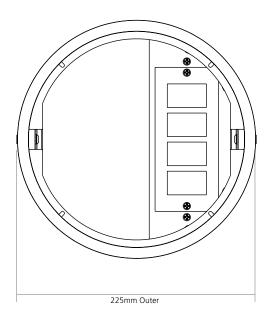
The 21 Series Data Cable Hive is suitable for raised floor applications. The 21 Series Data Cable Hives are designed for use in commercial environments and provide an efficient fast-fit on site installation.

Features include:

- Screw operated fixing clamps.
- Grey RAL7031 lid and trim V0 rated PC/ABS.
- Integral carpet gripper spikes pre-fitted to the trim.
- Self-closing lifting handle.
- Low profile surround.
- Can be pre-fitted with a Betatrak Tap-off unit.
- Recommended for installation in light traffic areas.

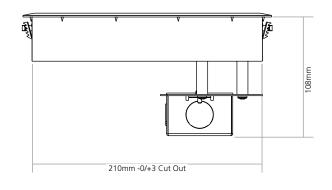


Note: All Standard Earth power plates are finished in textured matt grey paint (RAL7004).



Code PPGC214G

Description 108mm Height Large Data Cable Hive with 4x RJ45 Cut Outs





Cable Hives[®]

Power and Data Cable Hive (210mm Cut Out)

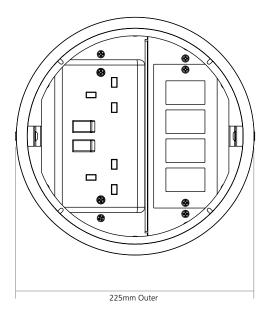
The 21 Series Power and Data Cable Hive is suitable for raised floor applications. The 21 Series Power and Data Cable Hives are designed for use in commercial environments and provide an efficient fast-fit on site installation.

Features include:

- Screw operated fixing clamps.
- Grey RAL7031 lid and trim V0 rated PC/ABS.
- Integral carpet gripper spikes pre-fitted to the trim.
- Self-closing lifting handle.
- Low profile surround.
- Can be pre-fitted with a Betatrak Tap-off unit.
- Recommended for installation in light traffic areas.



Note: All Standard Earth power plates are finished in textured matt grey paint (RAL7004).

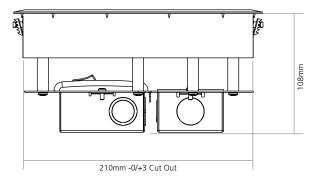


Code

Description

PPGC215G

108mm Height Large Power/Data Cable Hive with Twin 13A Switched Socket and 4x RJ45 Cut Outs





RCD Protected Power and Data Cable Hive (210mm Cut Out)

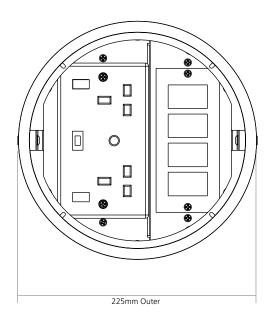
The 21 Series RCD Protected Power and Data Cable Hive is suitable for raised floor applications. The 21 Series RCD Protected Power and Data Cable Hives are designed for use in commercial environments and provide an efficient fast-fit on site installation.

Features include:

- Screw operated fixing clamps.
- Grey RAL7031 lid and trim V0 rated PC/ABS.
- Integral carpet gripper spikes pre-fitted to the trim.
- Self-closing lifting handle.
- Low profile surround.
- Can be pre-fitted with a Betatrak Tap-off unit.
- Recommended for installation in light traffic areas.

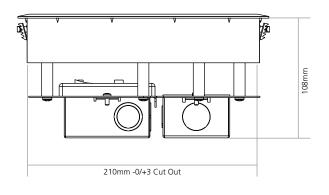


Note: All Standard Earth power plates are finished in textured matt grey paint (RAL7004).



Code Description
PPGC215G/RCD 108mm Heigh
Hive with Twin

108mm Height Large Power/Data Cable Hive with Twin 13A Switched RCD Socket and 4x RJ45 Cut Outs





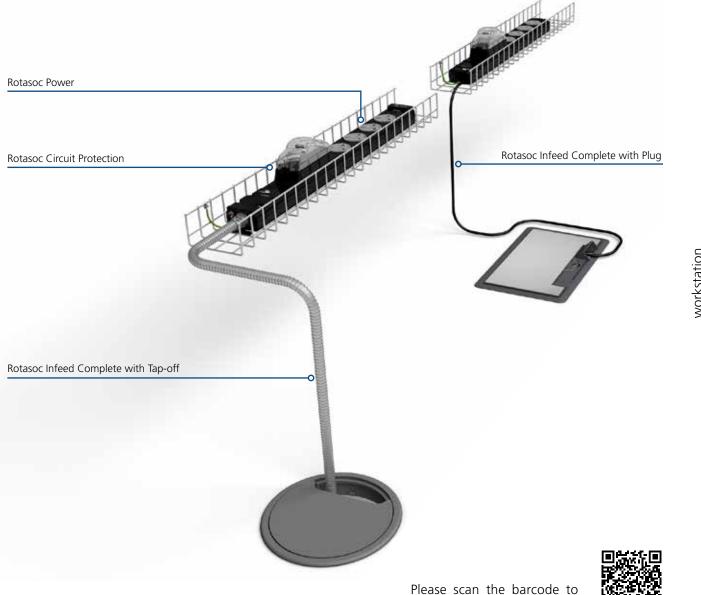


Rotasoc® Modular Power System

Rotasoc is a modular and reconfigurable workstation power system that allows compliance with BS 7671 Requirements for electrical installations or BS 6396 Electrical systems in office furniture and educational furniture. Rotasoc is BSI Kitemark accredited and is tested every six months.

Rotasoc can cater for Standard and Clean Earth (C/E) low noise systems and provides complete flexibility to your workstation layout. Available in both 32A and 16A versions Rotasoc has uniquely designed socket modules with 32A internal busbars that do not require internal wiring, offering unlimited 360 degree socket rotation.

Rotasoc has an intuitive, quick, and simple "fast-fit" installation method that reduces on-site labour costs.



view our Rotasoc animation.





Rotasoc® Technical Information

Benefits and Features

The benefits of using CMD's Rotasoc:

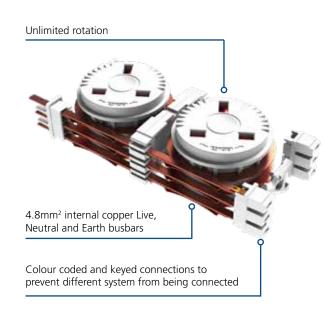
- A comprehensive range of interchangeable modules.
- Ultrasonically sealed units.
- Fast-fit modular system.
- Socket modules allow unlimited socket rotation due to busbar.
- Lever latching for secure connection between modules.
- Concealed screw fixings.

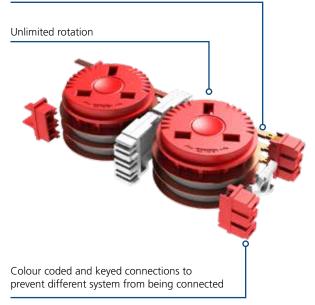
Features:

Standard Earth

Clean Earth (C/E) Low Noise

4.8mm² internal copper Live, Neutral and Clean Earth busbars





workstation

Rotasoc Latching System



1. On the rear face, release the lever with a suitable tool.



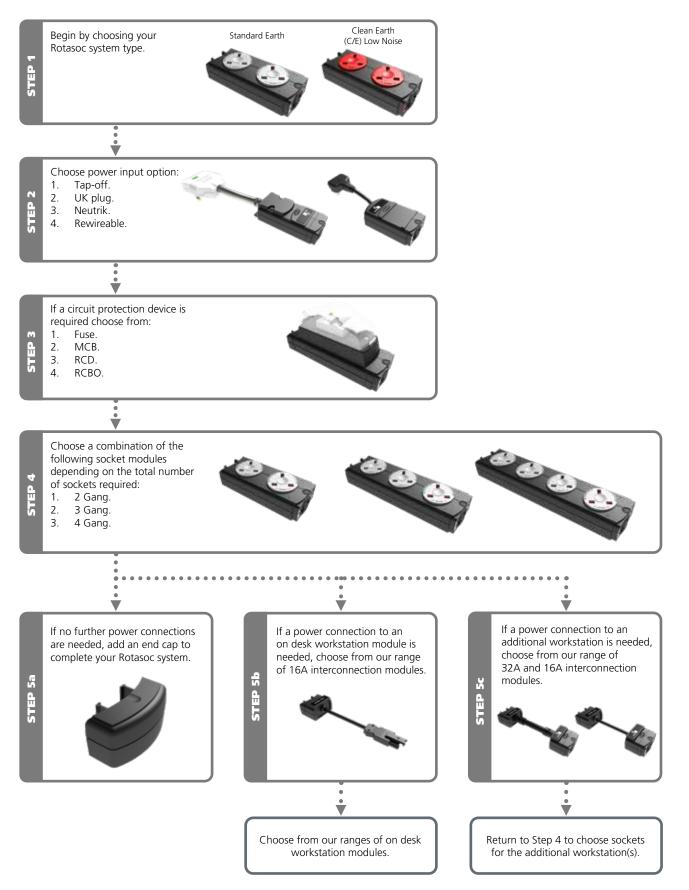
2. Connect the male and female ends together. Both ends must be colour matched.



3. Once connected, push back the lever so it sits flush with the surface to lock modules together.



Rotasoc® Specification Guide









Rotasoc® Example Layouts

Layout 1

Single desk: 13A UK plug feeding 4 gang module.



Layout 2 Single desk: Betatrak Tap-off plug feeding 4 gang module.



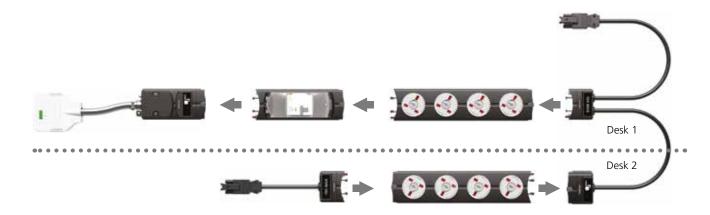
Layout 3

Single desk: Betatrak Tap-off plug feeding 4 gang module with feed for on desk power.



Nonver

Layout 4 Multiple desks: Betatrak Tap-off plug feeding 4 gang modules with feeds for on desk power.

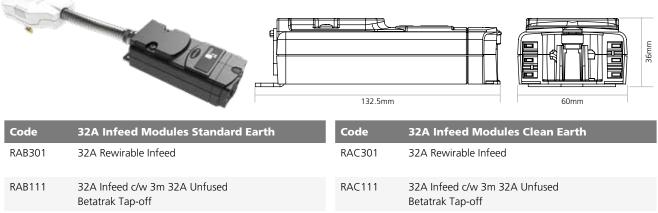




Rotasoc® Infeed

Rotasoc infeed modules allow connectivity from small power distribution to a workstation. Available in both 32A and 16A versions and can cater for Standard and Clean Earth (C/E) low noise systems.

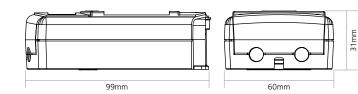
32A Infeed



	Betatrak Tap-off		Betatrak Tap-off
RAB112	32A Infeed c/w 5m 32A Unfused Betatrak Tap-off	RAC112	32A Infeed c/w 5m 32A Unfused Betatrak Tap-off
RAB113	32A Infeed c/w 3m 13A Fused Betatrak Tap-off	RAC113	32A Infeed c/w 3m 13A Fused Betatrak Tap-off
RAB114	32A Infeed c/w 5m 13A Fused Betatrak Tap-off	RAC114	32A Infeed c/w 5m 13A Fused Betatrak Tap-off
RABX2165	32A Infeed c/w 3-pole 32A Black Neutrik Note: The total length of this unit is 143.2mm	RACX2134	32A Infeed c/w 5-pole 32A Grey Neutrik Note: The total length of this unit is 143.2mm
RABX2024	32A Infeed c/w 5m 32A Unfused Betatrak SY Flexible Cable Tap-off	RACX2095	32A Infeed c/w 5m 32A Unfused Betatrak SY Flexible Cable Tap-off







Code	16 Infeed Modules Standard Earth	Code	16 Infeed Modules Clean Earth
RAB201	16A Rewirable Infeed	RAC201	16A Rewirable Infeed
RAB003	16A Infeed c/w 3m Lead and 13A BS 1363 Plug	RAC003	16A Infeed c/w 3m Lead and 13A BS 1363 Plug
RAB005	16A Infeed c/w 5m Lead and 13A BS 1363 Plug	RAC005	16A Infeed c/w 5m Lead and 13A BS 1363 Plug

+44 (0)1709 829511 | powerdistribution@cmd-ltd.com | www.cmd-ltd.com

Note: Rotasoc® is also available as a Dual System. Please call our sales team for more information.

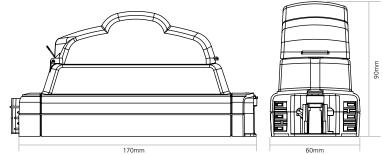


Rotasoc® Circuit Protection

Rotasoc circuit protection modules available in both 32A and 16A versions and can cater for Standard and Clean Earth (C/E) low noise systems.

RCD/MCB/RCBO Protection

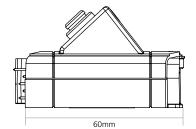


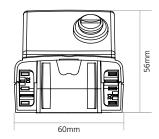


Code	Protection Modules Standard Earth	Code	Protection Modules Clean Earth
RAB405	32A 30mA RCD	RAC405	32A 30mA RCD
RAB420	16A MCB Type C	RAC420	16A MCB Type C
RAB450	16A 30mA RCBO Type C	RAC450	16A 30mA RCBO Type C
RAB460	20A 30mA RCBO Type C	RAC460	20A 30mA RCBO Type C
RAB470	32A 30mA RCBO Type C	RAC470	32A 30mA RCBO Type C

Fused Protection







Code	Switched/Fused Protection Modules Standard Earth	Code	Switched/Fused Protection Modules Clean Earth
RAB401	BS1362 13A Fuse	RAC401	BS1362 13A Fuse
RAB402	BS1362 13A Fuse and Neon Switch	RAC402	BS1362 13A Fuse and Neon Switch
RAB403	BS1362 13A Fuse and Neon Indicator	RAC403	BS1362 13A Fuse and Neon Indicator

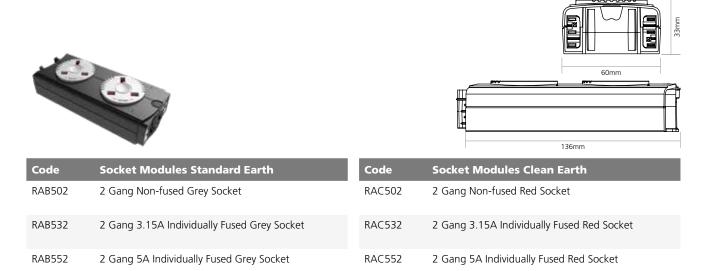
Note: Rotasoc® is also available as a Dual System. Please call our sales team for more information.

workstation



Rotasoc® Power Modules

Rotasoc socket modules are uniquely designed with 32A internal busbars that do not require internal wiring and offering unlimited 360° socket rotation. The socket modules can cater for Standard and Clean Earth (C/E) low noise systems.





			198mm		
Code	Socket Modules Standard Earth	Code	Socket Modules Clean Earth		
RAB503	3 Gang Non-fused Grey Socket	RAC503	3 Gang Non-fused Red Socket		
RAB533	3 Gang 3.15A Individually Fused Grey Socket	RAC533	3 Gang 3.15A Individually Fused Red Socket		
RAB553	3 Gang 5A Individually Fused Grey Socket	RAC553	3 Gang 5A Individually Fused Red Socket		

			257mm
Code	Socket Modules Standard Earth	Code	Socket Modules Clean Earth
RAB504	4 Gang Non-fused Grey Socket	RAC504	4 Gang Non-fused Red Socket
RAB534	4 Gang 3.15A Individually Fused Grey Socket	RAC534	4 Gang 3.15A Individually Fused Red Socket
RAB554	4 Gang 5A Individually Fused Grey Socket	RAC554	4 Gang 5A Individually Fused Red Socket

Note: Rotasoc® is also available as a Dual System. Please call our sales team for more information.

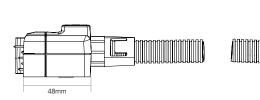


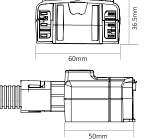


Rotasoc® Interconnect

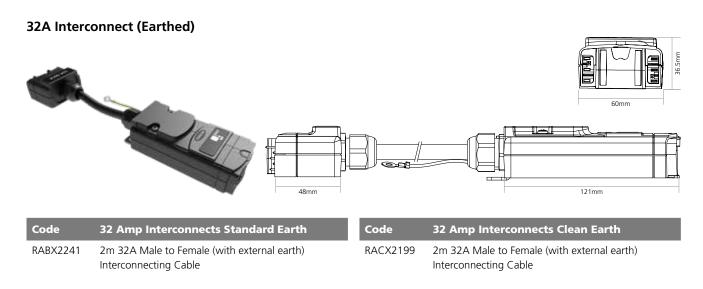
32A Interconnect







Code	32 Amp Interconnects Standard Earth	Code	32 Amp Interconnects Clean Earth
RAB703	0.3m 32A Male to Female Interconnecting Nylon Conduit	RAC703	0.3m 32A Male to Female Interconnecting Nylon Conduit
RAB705	0.5m 32A Male to Female Interconnecting Nylon Conduit	RAC705	0.5m 32A Male to Female Interconnecting Nylon Conduit
RAB710	1m 32A Male to Female Interconnecting Nylon Conduit	RAC710	1m 32A Male to Female Interconnecting Nylon Conduit
RAB720	2m 32A Male to Female Interconnecting Nylon Conduit	RAC720	2m 32A Male to Female Interconnecting Nylon Conduit
RAB730	3m 32A Male to Female Interconnecting Nylon Conduit	RAC730	3m 32A Male to Female Interconnecting Nylon Conduit
RAB750	5m 32A Male to Female Interconnecting Nylon Conduit	RAC750	5m 32A Male to Female Interconnecting Nylon Conduit



Note: Rotasoc® is also available as a Dual System. Please call our sales team for more information.

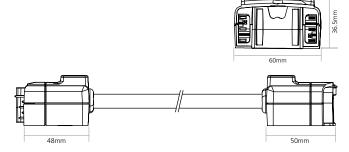


Rotasoc® Interconnect

Circuit protection must be used for 16A Rotasoc interconnection modules if the supply is 32A.

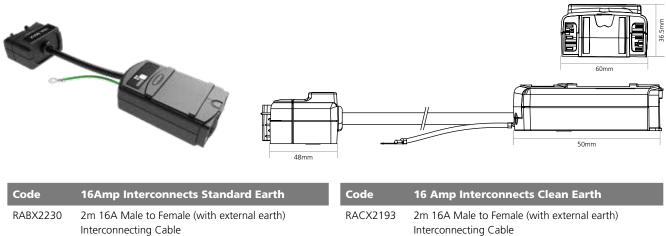
16A Interconnnect





Code	16Amp Interconnects Standard Earth	Code	16 Amp Interconnects Clean Earth
RAB603	0.3m 16A Male to Female Interconnecting Cable	RAC603	0.3m 16A Male to Female Interconnecting Cable
RAB605	0.5m 16A Male to Female Interconnecting Cable	RAC605	0.5m 16A Male to Female Interconnecting Cable
RAB610	1m 16A Male to Female Interconnecting Cable	RAC610	1m 16A Male to Female Interconnecting Cable
RAB620	2m 16A Male to Female Interconnecting Cable	RAC620	2m 16A Male to Female Interconnecting Cable
RAB630	3m 16A Male to Female Interconnecting Cable	RAC630	3m 16A Male to Female Interconnecting Cable
RAB650	5m 16A Male to Female Interconnecting Cable	RAC650	5m 16A Male to Female Interconnecting Cable
RAB670GST	0.5m 16A Rotasoc Male to GST Female output	RAC670GST	0.5m 16A Rotasoc Male to GST Female Output
RABX2184	16A Male split interconnect 0.5m to GST Female Output 2m to Female Rotasoc	RACX2120	16A Male split interconnect 0.5m to GST Female Output 2m to Female Rotasoc

16A Interconnnect (Earthed)



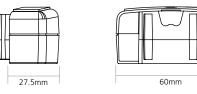
Note: Rotasoc® is also available as a Dual System. Please call our sales team for more information.



31mm

Rotasoc® End Cap





Code	End Cap
RAZ001	End Cap

Rotasoc® Earth Cables

Code	Earth Cable Kits
RAZ020	250mm x 4.0mm Earth Cable Kit c/w Fixings for 32A Infeed
RAZ010	250mm x 1.5mm Earth Cable Kit c/w Fixings for 16A Infeed





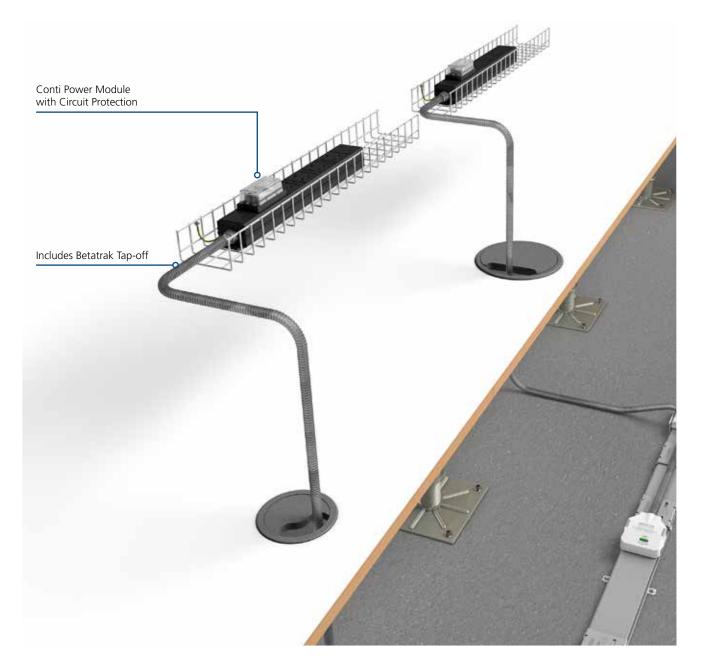
Conti Under Desk Power Module

Conti is a versatile desk power system that allows compliance with BS 7671 Requirements for electrical installations or BS 6396 Electrical systems in office furniture and educational furniture.

Configurable to suit your project's bespoke requirements, Conti has a wide range of power, protection, data and AV options.

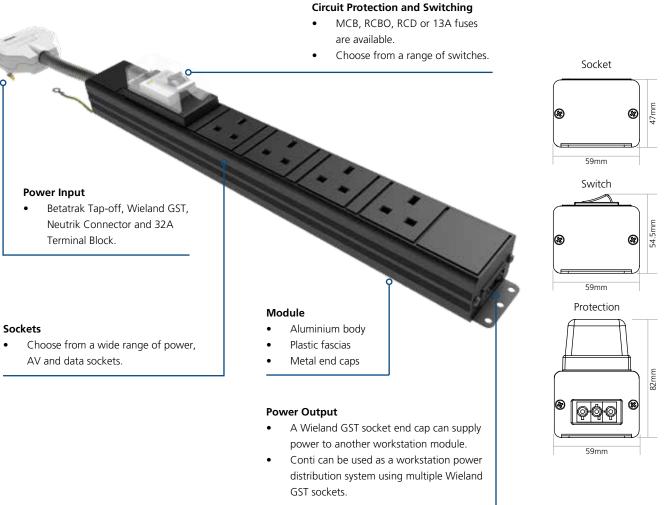
The benefits of using a CMD Conti:

- Allows compliance with BS 7671 or BS 6396.
- Can be fitted with a wide variety of circuit protective devices.
- A comprehensive range of power, data and AV outputs and inputs available.
- Manufactured to BS 5733 General requirements for electrical accessories.
- Available with 32A Neutrik socket to allow units to be fitted after floor tiles are laid.





Conti Under Desk Power Module



Illustrative Conti Configurations





workstatic



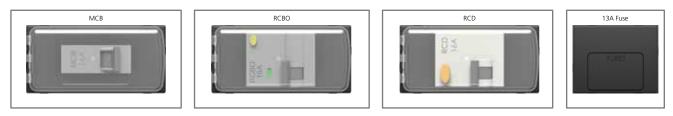
Conti Under Desk Power Module

Conti modules can be specified in a variety of ways, depending on the individual requirements of each project. Some commonly specified options are shown below.

Power Inputs

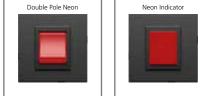


Circuit Protection



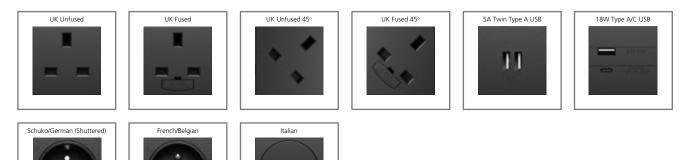
Switches





Power Sockets

Select from our comprehensive range of UK and international power sockets. UK sockets are available in different orientations and either individually fused (3.15A or 5A) or unfused.





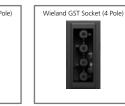
Wieland GST Power Connectors

16A rated 3 pole or 4 pole Wieland GST power connectors can be used in conjunction with UK or international power sockets to provide a dedicated power output that can be utilised to feed further workstations and/or on desk power modules.

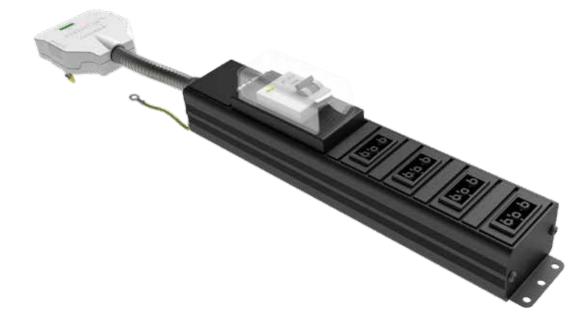








Wieland GST power connectors can also be used as a dedicated Power Distribution Unit (PDU).

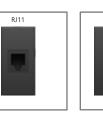


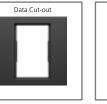
workstation

AV and Data Sockets

Select from our comprehensive range AV and data sockets, that can be supplied pre-wired if required. Contact us to discuss your requirements.





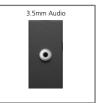




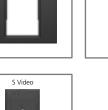
LISB













Conti Under Desk Data Modules

			59mm
Code	Data Modules	Code	Data Modules
86K745	2 Way Conti Data Module. 2x 6C Cut Outs Facing East West. 20mm Entry Hole.	86D59995	2 Way Conti Data Module. 2x 6C Cut Outs Facing East West. 25mm Entry Hole.
			227.5mm 255mm
Code	Data Modules	Code	Data Modules
86K710	4 way Conti Data Module. 4x 6C Cut Outs Facing East West. 20mm Entry Hole.	86K1460	4 way Conti Data Module. 4x 6C Cut Outs Facing East West. 25mm Entry Hole.
			327.5mm 355mm
Code	Data Modules	Code	Data Modules
86K776	6 Way Conti Data Module. 6x 6C Cut Outs Facing East West. 20mm Entry Hole.	86D141502	6 Way Conti Data Module. 6x 6C Cut Outs Facing East West. 25mm Entry Hole.

workstation **DOWET**

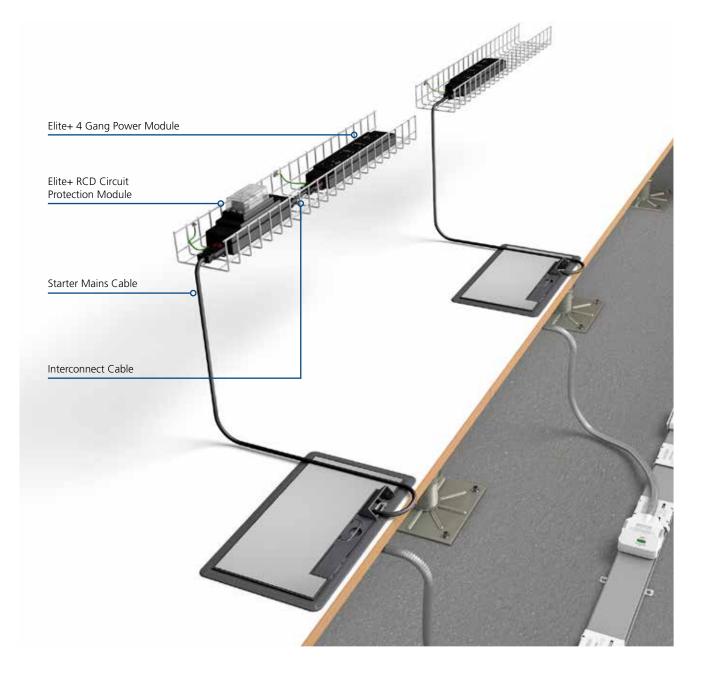


Elite+ Under Desk Power Module

Elite+ is a fixed format under desk power system that allows compliance with BS 6396 Electrical systems in office furniture and educational furniture.

The benefits of using a CMD Ltd Elite+ workstation power system:

- Allows compliance with BS 6396.
- Separate RCD circuit protection module available.
- A comprehensive range of 2, 3, 4 and 6 gang power modules.
- Manufactured to BS 5733 General requirements for electrical accessories.
- Utilises standard 3 pole Wieland GST connections.
- Plastic fire retardant body.
- Supplied pre-fitted with earth lead.



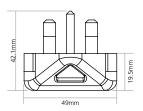


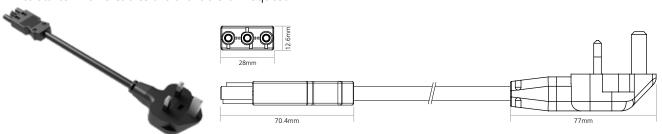


Starter Mains Cables

- BS 1363 UK plug to 3 pole female Wieland GST connector.
- 3 core 1.5mm² cable up to 7m.
- Cable lengths over 7m are 2.5mm² cable due to voltage drop.
- Wieland GST connectors comply with BS 5733.

All starter mains cables listed below are black. White starter mains cables are available on request.



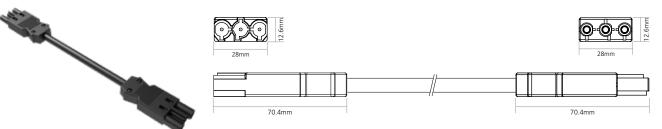


Code	Starter Mains Cables	Code	16 Amp Interconnects
601110GST	1.0m 13A UK Plug to 3 Pole Female Wieland GST	601160GST	6.0m 13A UK Plug to 3 Pole Female Wieland GST
601115GST	1.5m 13A UK Plug to 3 Pole Female Wieland GST	601170GST	7.0m 13A UK Plug to 3 Pole Female Wieland GST
601120GST	2.0m 13A UK Plug to 3 Pole Female Wieland GST	601179GST	8.0m 13A UK Plug to 3 Pole Female Wieland GST
601130GST	3.0m 13A UK Plug to 3 Pole Female Wieland GST	601180GST	9.0m 13A UK Plug to 3 Pole Female Wieland GST
601140GST	4.0m 13A UK Plug to 3 Pole Female Wieland GST	600965GST	10.0m 13A UK Plug to 3 Pole Female Wieland GST
601150GST	5.0m 13A UK Plug to 3 Pole Female Wieland GST		

Interconnect Cables

- 3 pole male Wieland GST connector to 3 pole female Wieland GST connector.
- 3 core 1.5mm² cable up to 7m.
- Cable lengths over 7m are 2.5mm² cable due to voltage drop.
- Wieland GST connectors comply with BS 5733.

All interconnect cables listed below are black. White interconnect cables are available on request.

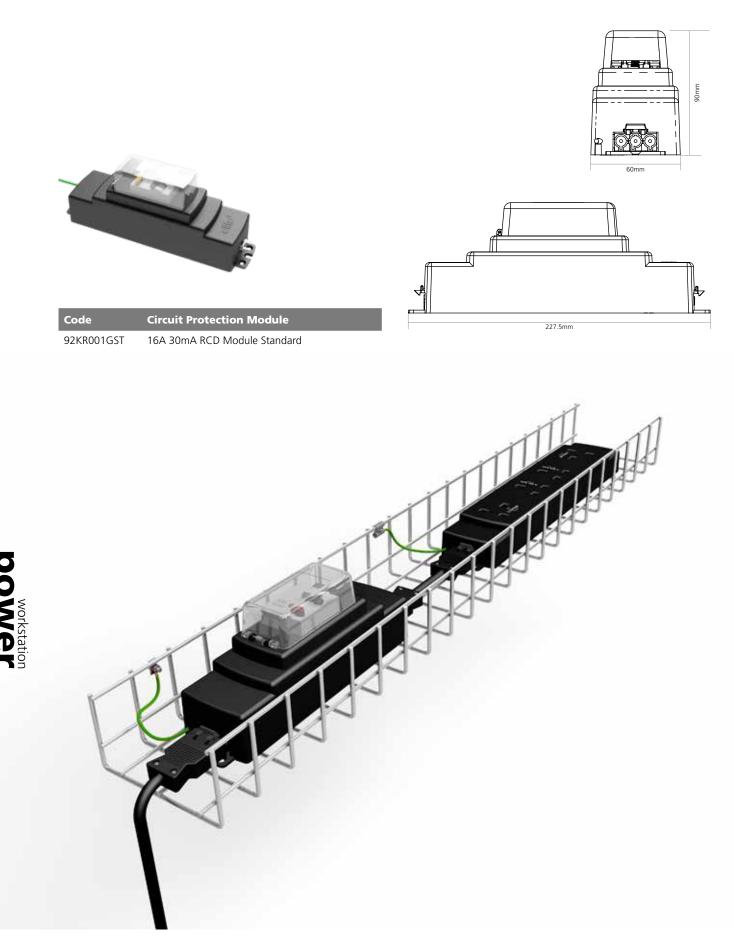


Code	Starter Mains Cables	Code	16 Amp Interconnects
620203GST	0.3m 3 Pole GST Male Wieland to 3 Pole GST Female Wieland	620220GST	2.0m 3 Pole GST Male Wieland to 3 Pole GST Female Wieland
620205GST	0.5m 3 Pole GST Male Wieland to 3 Pole GST Female Wieland	620230GST	3.0m 3 Pole GST Male Wieland to 3 Pole GST Female Wieland
620210GST	1.0m 3 Pole GST Male Wieland to 3 Pole GST Female Wieland	620240GST	4.0m 3 Pole GST Male Wieland to 3 Pole GST Female Wieland
620215GST	1.5m 3 Pole GST Male Wieland to 3 Pole GST Female Wieland		



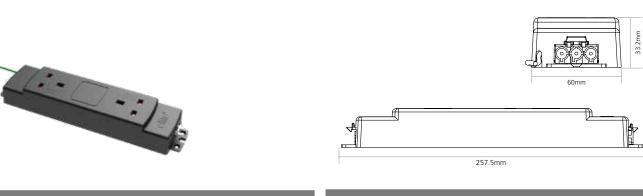


Elite+ RCD Circuit Protection Module





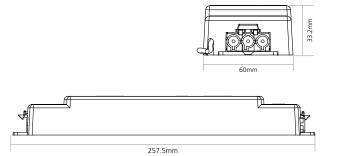
Elite+ Power Modules



Code	3.15A Socket Modules	Code	5A Socket Modules
92K005GST	2 Gang 3.15A Individually Fused Sockets Black Body 1x East and 1x West Facing Sockets 3 Pole Wieland GST Input/Output	92K011GST	2 Gang 5A Individually Fused Sockets Black Body 1x East and 1x West Facing Sockets 3 Pole Wieland GST Input/Output



Code	3.15A Socket Modules
92K007GST	3 Gang 3.15A Individually Fused Sockets Black Body 1x East, 1x North and 1x West Facing Sockets 3 Pole Wieland GST Input/Output

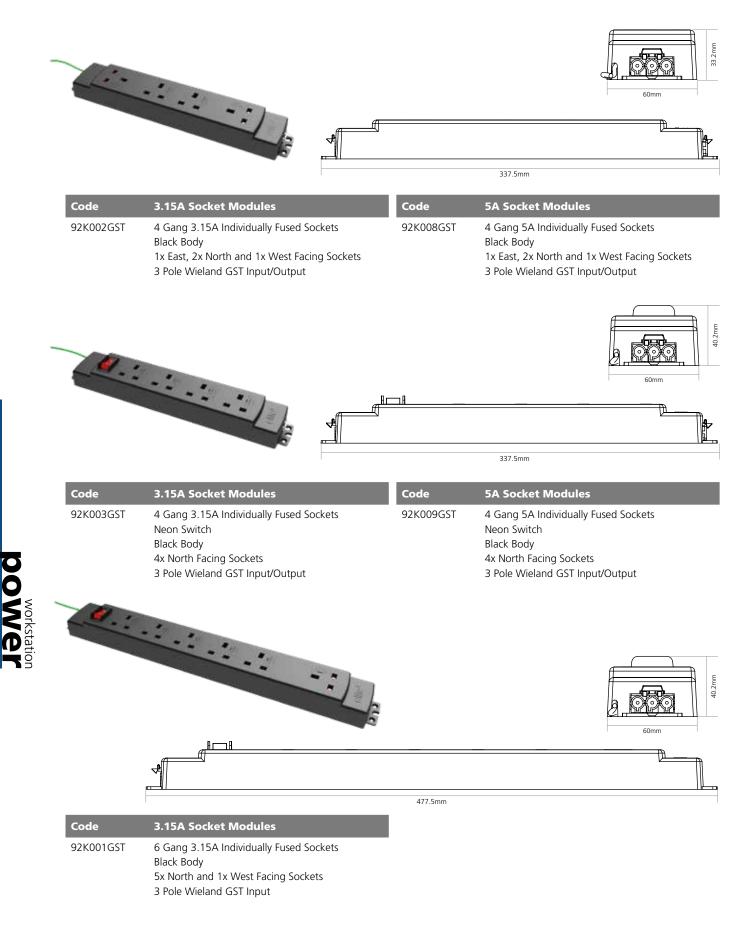


Code	5A Socket Modules
92K013GST	3 Gang 5A Individually Fused Sockets Black Body 1x East, 1x North and 1x West Facing Sockets 3 Pole Wieland GST Input/Output





Elite+ Power Modules





Elite+ Accessories

Wieland GST Mains Splitter



Wieland GST Self-Fit Connectors



Code	GST Mains Splitter	Code	GST Self-Fit Connectors
161415GST	Standard Mains Splitter with 1 Male Inlet to 3 Female Outlets, with Fixing Lugs. Black.	440633	Pack of 10 Male Connectors. Black.
		440632	Pack of 10 Female Connectors. Black.

Wieland GST Blanking Plugs





Wieland GST/ST Connector Blocks



Code	GST Blanking Plugs	Code	GST/ST Connector Blocks
161419GST	To Blank off a Male Connector. Black.	160834GST	Converts a Female ST Output to a Female GST Output. Black.
161421GST	To Blank off a Female Connector. Black.	160618GST	Converts a Female GST Output to a Female ST Output. Black.

Wieland Locking Clips

Wieland Cable Locking Clips are available but will vary depending on the cables used so please speak to a member of our sales team for more information.

Fuses



Code	20mm x 5mm Fuses	
440175	Pack of 100x 3.15A Fuses.	
440176	Pack of 100x 5A Fuses.	



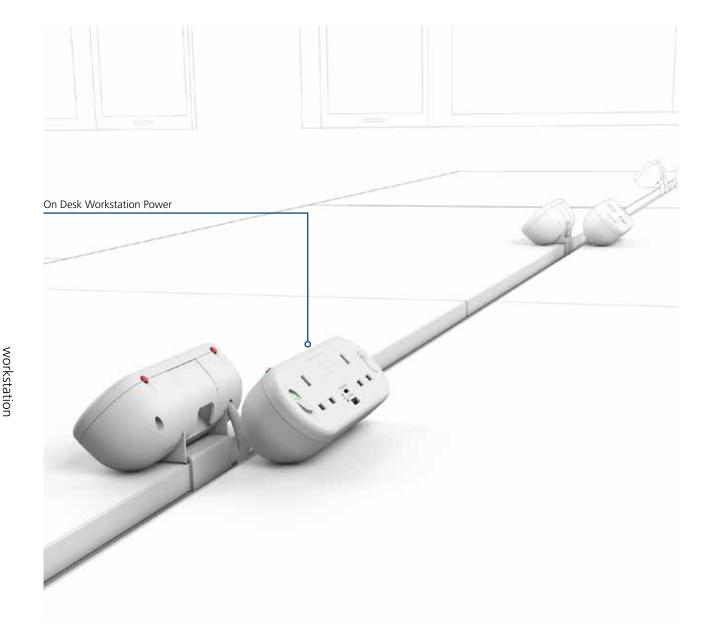
Workstation Power and Other CMD Products

CMD Ltd have a comprehensive range of workstation power modules, ergonomic equipment and cable management products that will complete the connection of your power distribution system from below the floor to the surface of a workstation.

Ergonomic equipment includes a choice of dynamic monitor arms or pole monitor arms for single and multiscreen setups, and CPU supports to suit a wide range of CPU size variations.

The benefits of using CMD workstation power and ergonomic products:

- Allows compliance with BS 6396 Electrical systems in office furniture and educational furniture.
- Selected products available for immediate despatch or can be customised to meet individual requirements.
- Power modules manufactured to BS 5733 General requirements for electrical accessories.
- Product warranties range from 1-10 years.





Capsule On Desk Power Module

Capsule is a fixed format power module that includes two UK sockets with individual illuminated switches, resettable 3A circuit breakers, dual port Type A and C adaptive fast charger with LED indicators and a desk fixing clamp. Capsule also has two apertures which can house a range of keystone sockets.



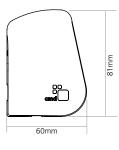
Contour Power Module

Contour is available with a metal or plastic body and can be customised to support a range of UK and international, USB charging and AV sockets and is fully compliant to current safety regulations.





Please scan the barcode to visit our



Harmony On Desk Power Module

Harmony has a metal body and can be customised to support a range of UK and international, USB charging and AV sockets and is fully compliant to current safety regulations.





Additional Workstation Power Modules



Other CMD Products



Please call our sales team for more information or visit our website.





3m Tap-off Regulation

Unfused Tap-off Units Exceeding 3m BS7671 Requirements for electrical installations. IET Wiring Regulations.

Tap-off units exceeding 3m should only be used if they contain a fuse or the powertrack is protected by a 32A rated protective device.

Why this is important?

63A powertrack systems are designed to be protected by a circuit protective device to a maximum of 63A. CMD Ltd always assumes that this protection device is located at the origin of the circuit in the distribution board (not supplied by CMD).

CMD tap-off units allow compliance with UK Regulation 434.2.1 of BS 7671 (Fault Protection). In summary, this regulation states that the maximum length of cable may not exceed 3m. This is because there will be a reduction in current-carrying capacity in a 63A powertrack system at the point where the 32A tap-off unit is required to supply other products in the powertrack system.

The tap-off unit must also be installed in such a manner to reduce the risk of fault or damage to the product to a minimum, which includes reinforcing the protection of the wiring against external influences. CMD achieves this by using a flexible metal conduit.

If your product solution requires you to exceed a length of 3m in a 63A powertrack system (where the circuit protective device is greater than 32A) then a 13A Fused tap-off unit should be used.

CMD can supply unfused tap-offs that exceed 3m for use with powertrack systems rated at no more than 32A, but a suitable circuit protective device should be utilised to protect from overload and fault current.

Overload protection from the 63A Powertrack system to a 3m unfused 32A tap-off that is supplying a floor service unit or desk power module must also be considered. CMD tap-offs allow compliance to wiring regulation 433.3.1 of BS 7671 when the nature of the load is equal to or less than 32A. It is a requirement that if a 3m unfused 32A tap-off could overload, an appropriate up-stream circuit protection must be installed. This could take the form of:

- A 13A fused tap-off.
- De-rating of the 63A powertrack system to a 32A system with a suitable circuit protection device (located at the origin of the circuit in the distribution board).
- Installation of an RCBO fitted into either the floor service unit or desk power module.

CMD Tap-off Lengths:

The metal flexible conduit on all CMD Betatrak Tap-offs are supplied at 225mm less than the 3m and 5m stated lengths to allow for electrical connections to components without stressing the electrical terminations. Therefore, a 3m tap-off will have a metallic flexible conduit length of 2775mm and a 5m tap-off will be 4775mm long.

CMD Related Product(s).

- Betatrak (63A Powertrack).
- Tap-off.
- Floor Boxes 20, 20A and 99 Series.
- Slab Boxes.
- Cleaner's and Power Hives.
- Rotasoc® tap-off Unit.
- Conti containing tap-off unit.

Technical and Regulatory Guidance



RCD Compliance

Residual Current Device (RCD) and Socket-Outlet Additional Protection.

What an RCD Does.

A residual current device, or RCD, prevents a user from getting a hazardous or fatal electric shock. The RCD switches off the electricity automatically if it detects a fault to earth or excessive earth leakage. It does this by constantly monitoring the electric current flowing through the circuit it is protecting. If an RCD detects a fault to earth or excessive earth leakage, it will 'trip' i.e., automatically switch off, preventing electricity flowing any further through the electrical circuit.

RCD's are used in many industries meaning there are different specifications available. The name RCD is generic and is a family of devices comprising different names and specifications that incorporate RCD protection. This document aims to give guidance about RCD's which are built into either the power distribution system of an office building (fixed wiring installation) or used in office and educational furniture (furniture electrical system) to provide additional protection.

Earth Leakage Explanation.

Earth leakage is when the current flowing in a circuit finds an alternative return path other than through phase conductors. It is associated with a residual current of small magnitude and is generally measured in the order of milliamp (mA). An RCD will 'trip' if it detects a high magnitude of earth leakage i.e., an excessive level. For example, CMD Ltd generally installs 30mA Type A RCD's which will trip if approximately 22mA (or greater) earth leakage is detected.

Specifying RCD into the Power Distribution System of an Office Building (BS 7671 Requirements for electrical installations. IET Wiring Regulations).

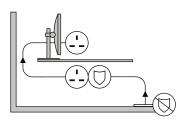
This applies to products that contain socket-outlets up to a rating of 32A and are part of the fixed wiring installation. All socket-outlets up to a rating of 32A must have 30mA RCD protection.

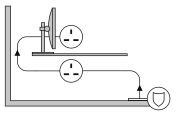
Key

No RCD Protection

ブ) RCD Protection

Power Module

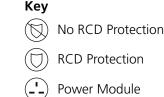


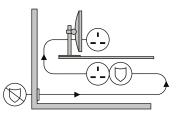


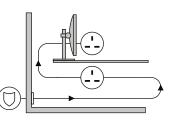
The standard that must be complied with is Wiring Regulation BS 7671, 411.3.3 Additional requirements for socketoutlets and for the supply of mobile equipment for use outdoors.

Specifying RCD into Office and Educational Furniture (BS 6396 Electrical systems in office furniture and educational furniture).

This applies to furniture electrical systems that are powered by means of a BS 1363 fused 13A plug and that are connected to an office building's fixed wiring 13A socket-outlet.







The standard is BS 6396, Clause 5.1.3. It states that a 30mA RCD must be incorporated into the design of the furniture electrical system if an RCD is not present within the fixed wiring 13A socket-outlet circuit that it is being connected to.



RCD Compliance (Continued...)

CMD Related Product(s).

BS 7671 Requirements for electrical installations. IET Wiring Regulations.	BS 6396 Electrical systems in office furniture and educational furniture (BS 1363 13A Fused Plug)
 Betatrak (63A Powertrack). Floor Boxes 20, 20A and 99 Series. Slab Boxes. Cleaner's and Power Hives. Rotasoc[®]. Conti. Power Hub. 	 Under desk power modules (Rotasoc, Elite, Conti). In desk power modules (Surface, Face, Affinity, Horizon, Inca, Porthole, Reveal). On desk power modules (Capsule, Harmony, Contour). Starter and Connector Cables.

RCD Protection Devices Used by CMD.

Generally, for the UK market CMD supplies 30mA Type A RCD's using the device types listed below. These are suitable for office and educational electrical systems containing IT equipment.

	RCD Device Type	Compliance Standard	CMD Product(s) (That the RCD could be installed into)		
RCCB	Residual current operated circuit-breaker without integral overcurrent protection.	IEC 61008-1	 Floor Boxes 20, 20A and 99 Series. Slab Boxes. Rotasoc®. Conti (all types). Elite. 		
RCBO	Residual current operated circuit-breaker with integral overcurrent protection. Combines an MCB and RCD providing dual protection of fault and earth leakage.	IEC 61009-1	 Floor Boxes 20, 20A and 99 Series. Slab Boxes. Rotasoc®. Conti (all types). 		
SRCD	13A Socket-outlet incorporating an RCD A latching / passive RCD which does not require re-set in the event of mains power distribution failure (not to be confused with fault to earth or earth leakage).	BS 7288	 Floor Boxes 20, 20A and 99 Series. Slab Boxes. 		

guidance



BS EN 61535 Installation couplers intended for permanent connection in fixed installations

BS EN 61535 is an electrical product standard that applies to two, three, four and five wire installation couplers including earth, (if provided), with a rated voltage up to and including 500V a.c. and a current rating up to 32A for permanent connection in indoor electrical installations. An installation coupler is described as having both a female and male connector that are not intended to be connected whilst under load. If in a readily accessible area, they must employ a locking mechanism requiring release by a tool only.

Installation couplers with additional contacts for voltages other than mains voltages are outside the scope of this standard. CMD Ltd products that use installation couplers allow compliance to BS EN 61535.

CMD Related Product(s):

- Power Hub.
- Tap-off.
- Rotasoc®.
- Under desk power modules (Conti, Elite).
- Through desk power modules (Porthole, Horizon, Affinity, Reveal, Surface, Face, Inca).
- On-desk power modules (Harmony, Capsule, Contour, Inca, Chip).

BS 5733 General requirements for electrical accessories

This guidance note describes BS 5733, which incorporates electrical products intended for use in domestic and commercial installations. BS 5733 compliance ensures the safe design and manufacture of electrical products because it specifies the tests that check their safety in normal use not specifically covered by other British Standards.

System Application.

This applies to products if:

- The nominal supply voltage does not exceed 250V a.c. single phase, 50Hz to 60Hz or 250V d.c.
- The rated current of the electrical product does not exceed 63A.
- The connecting devices and other electrical products incorporate BS 1363 13A socket-outlets.

CMD Related Product(s).

The following CMD products have been designed to comply with BS 5733.

- Power Hub.
- Floor Boxes 20, 20A and 99 Series.
- Slab Boxes.
- Cleaner's and Power Hives.
- Under desk power modules (Rotasoc, Conti, Elite).
- In desk power modules (Surface, Face, Affinity, Horizon, Inca, Porthole and Reveal).
- On desk power modules (Capsule, Harmony and Contour).



BS 6396 Electrical systems in office furniture and educational furniture

British Standard BS 6396 states that electrical products specified in an electrical power, AV and cable-management solution for use in office and educational furniture environments must comply with BS 5733 General requirements for electrical accessories.

This section describes how to safely specify and install an electrical power, AV and cable-management solution in office furniture (including office screens) and educational furniture environments.

System Application.

This specifically applies to any electrical system that is connected to the mains supply by means of a BS 1363 13A plug.

The standard does not apply to power distribution systems e.g., CMD Ltd's 'Betatrak' system, that are permanently connected to the building installation or for electrical appliances for which other appropriate standards are available.

Why this is important.

The "Electricity at Work Regulations" stipulate that electrical equipment and installations must be designed and tested to ensure their safety and to comply with statutory regulations. This is important to ensure the circuits are not overloaded and do not cause a risk of danger to the user, e.g., electric shock or fire. This is achieved by both restricting the maximum number of socket outlets connected to the building's mains electrical supply, individual socket fusing and through appropriate earthing (of exposed conductive parts). A method of demonstrating safety is to comply with the British Standard, BS 6396.

Things to consider:

• BS 5733

All electrical products used within the electrical system must be designed to comply with BS 5733.

• Residual Current Device Protection (RCD)

It is vital to check that the building socket outlet, onto which your office or educational electrical system is being connected to, is protected by a 30mA RCD. If an RCD does not exist within this system, an RCD must be present in the electrical solution (power modules and starter leads) being specified.

• Earthing

Earthing of exposed conductive parts protects the user from electrical shock in the event of a basic insulation failure. CMD supplies power modules with socket outlets complying with BS1363 - 13 A plus, socket-outlets, adaptors and connection units, incorporating earthing to the outgoing sockets. They may also be specified with an external earth connection to provide supplementary bonding to metallic cable containment within office furniture.

When used with an electrical system, furniture under normal conditions would not be live but any exposed conductive parts could carry a hazardous voltage under fault conditions. The specifier must assess the furniture to determine whether it requires a protective earth connection i.e., external earth connection from the power module to the furniture.

The earthing of the workstation depends on its construction, but generally:

- Furniture with metal containment/structure does not need to be earthed, provided the electrical supply/ interlinking cables are double insulated and the power modules are in a reinforced insulated body, or in an earthed metallic body.
- Furniture with metal containment/structure requires an external earth connection from the power module to the furniture if single insulated cables have been used in the structure of the furniture. This is because they could cause a fault in the event of failure of basic insulation.
- Furniture with a metal containment/structure, requires an external earth connection from the power module to the furniture, if the cables could be trapped or damaged due to incorrect operation or adjustment of the workstation.



BS 6396 Electrical systems in office furniture and educational furniture (Continued...)

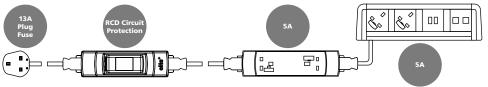
Inspection and Testing.

To ensure compliance to BS 6396 and the "Electricity at Work Regulations", electrical system installations of office furniture or educational furniture must be inspected, tested and the results documented. This applies to both new and reconfigured installations. The tests must be performed by suitably trained personnel. Section 7 of BS 6396 sets out the testing procedure.

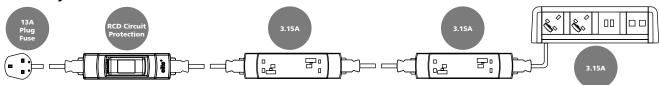
How to comply to BS 6396:

- Must have RCD Circuit Protection within the electrical system.
- Determine furniture earthing requirements.
- 13A three-pin plugs must conform to BS1363 13 A plus, socket-outlets, adaptors and connection units.
- Electrical product(s) must conform to BS 5733 General requirements for electrical accessories.
- Sockets must be individually protected by an over current protective device e.g., 3.15A or 5A fuse.
 - If sockets are individually protected with 5A fuses then a maximum of 4 sockets may be supplied from a single 13A plug connected to the building's mains electrical supply socket-outlet. See 5A layout below.
 - If sockets are individually protected with 3.15A fuses then a maximum of 6 sockets may be supplied from a single 13A plug connected to the building's mains electrical supply socket-outlet. See 3.15A layout below.
- Mains electricity cables shall be separated from all other cables or all cables must be insulated for the highest voltage present.
- Data and other AV cables can share a common duct/aperture providing the following is met:
 - They are separated by a cable management system such as a cable spine.
 - Cable supports spaced at a maximum distance of 300mm apart.
- Testing according to BS 6396, section 7.

5A Layout



3.15A Layout



CMD Related Product(s):

- Under Desk Power Modules (Elite, Conti, Rotasoc).
- In Desk Power Modules (Surface, Face, Affinity, Horizon, Inca, Porthole, Reveal).
- On Desk Power Modules (Capsule, Harmony, Contour).
- Starter and Connector Cables.
- Cable Management (Fusion, Premium cable basket, Tidy and Spiral).

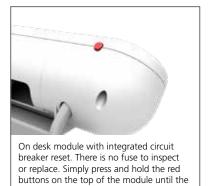


Power Module Trouble Shooting

This guide identifies the common reasons why you may find that your CMD Ltd power module is not powering your devices and how to resolve them. The most recurrent cause is likely to be that circuit breakers or fuses need either resetting or replacing.

Module with integrated circuit breaker (Capsule).





lights on the front illuminate.

Modules with replaceable fuses.





By following this guide, we are confident your power module will be back up and running in no time but please note that all remedial actions should only be conducted by a skilled or instructed person. If you require further advice, do not hesitate to contact CMD.

Fuses and Circuit Breakers.

CMD produce power modules designed to allow compliance with BS 6396 Electrical systems in office furniture and educational furniture. To meet the requirements of the standard, the power modules incorporate individual fused sockets, rated at either 3.15A or 5A. The fuse or circuit breaker is a safety feature in the circuit, which is intended to 'blow' or 'trip' if the connected device draws too much current.

CMD's power modules are designed to power office equipment e.g. computer monitor, desktop computer, 60W desk lamp, laptop charger, mobile phone charger. They are not intended to power other types of electrical equipment that draw more than 5A. Electrical items that do require more than 5A should be connected directly to a 13A socket.

Technical and Regulatory Guidance

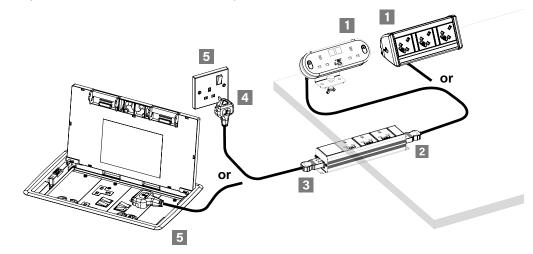


Power Module Trouble Shooting (Continued...)

Troubleshooting Scenario.

This troubleshooting scenario assumes an electrical system comprising:

- Starter lead with 13A plug and Wieland GST output connection.
- Under desk power module with Wieland GST input and output connections.
- On desk power module with Wieland GST input connection.



ер	Check	_	Remedial Action		If not resolved
1	Have you changed/ checked the fuse/ circuit breaker?	+	Ask the Facilities Management team to check and replace or reset the fuse/circuit breaker. On modules with a circuit breaker reset, there is no need to disconnect it from power but it is mandatory to remove plugs.	Press and hold reset button 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Move to step two
2	Have you checked if the on desk module is securely connected into the GST 3-pole output of the under desk module?	•	The Facilities Management team should check that the out- going 3-pole connector is fully inserted and the inline locking mechanism is correctly engaged.		Move to step three.
3	Have you checked if the starter lead is connected securely into the under desk module?	•	The Facilities Management team should check that the incoming GST 3-pole connector is fully inserted and the the inline locking mechanism is engaged correctly.	CLICK"	Move to step four.
4	Has the fuse in the 13A UK plug been checked?	•	The Facilities Management team should check the 13A fuse in the plug-top and replace if necessary.		Move to step five.
5	Is power coming from the wall socket or floor box socket?	•	The Facilities Management team should check the wall or floor box socket.	Check switched on	You will need to seek guidance from an electrician to assess the wall or floor box socket.





Electrical Product Testing

CMD Ltd undertakes a 100% inspection and test regime on all factory assembled products used in electrical installations. This is carried out in accordance with our ISO 9001 Quality Management System procedures.

Where applicable, the following inspection and tests are applied:

- 1. Visual inspection of the unit to be tested.
- 2. Earth continuity test.
- 3. Insulation (voltage adjusted for active components) test.
- 4. Polarity test.
- 5. Operation test.
- 6. RCD test (if relevant).

The results of all tests are recorded by CMD. All products have a QR code printed to its product label that will identify testers initials, batch number, part number and date for traceability.

ISO 14001 Environmental Management System and ISO 9001 Quality Management System

CMD is committed to providing a high-quality product and service that continually evolves to exceed the needs of our clients.

CMD Management Systems and Procedures meet the Requirements of BS EN ISO 14001 Environmental Management System and BS EN ISO 9001 Quality Management System.

Notes

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