



# Cable Management in the Workplace

For Health & Safety,  
& Productivity

**D-LINE®**

## Trailing cables can be very costly...

Around half the UK's working population work in offices<sup>(1)</sup>, expecting environments to be safe, healthy and comfortable, yet efficient and productive also. This trust has for some years been challenged by a variety of pressures which have squeezed personal space<sup>(2)</sup> - while, at the same time, cables have proliferated. Each of these trends has significant consequences, but when combined they can impact on health & safety, and ergonomic planning, to make **cable management a critical issue** which requires a pro-active and responsible approach.

It is not always possible to route cables neatly along walls, using trunking; above suspended ceilings and down power poles, or under raised floors; to integrate desk electrics, or locate workstations closer to power supplies to minimise the lengths of trailing cables. **More often cables are all around us and under our feet!** We've more electrical equipment and wired appliances than ever before - the typical workstation will have at least six cables - so the average UK office worker today accounts for over twenty metres of exposed cabling.<sup>(3)</sup>



Despite extensive health & safety legislation that outlines employers obligations, **when left unchecked, cables can represent accidents waiting to happen** – trips lead to 16% of compensation claims<sup>(4)</sup>, with a long-list of solicitors offering 'no-win no-fee' services to injured victims. Cable hazards are however easy to address, with affordable cable management products that are retrofit and complementary being very easy-to-fit, and usually conspicuous to symbolise a positive health & safety culture.

In the 12 months to October 2015, statistics published by Health & Safety Executive (HSE) revealed that 171,000 workers self-reported a slip or trip at work -the most common kind of accident (28% of total non-fatal injuries<sup>(5)</sup>); with a similar number believed to be unreported.<sup>(5)</sup> Disturbingly a recent national survey confirmed that **most workplaces reported risks of slips, trips and falls to be present**<sup>(6)</sup>.

Of an estimated average of almost **500 trips every day in UK workplaces**<sup>(7)</sup>, thankfully many will have trivial or no consequence, but others can cause lengthy absence and personal distress. Never mind the risk from loosened electrical connections, or damage to work equipment from the sudden tug or pull of a trip, approximately a third of such injuries will result in an absence of 3 days, and a quarter over 7 days<sup>(5)</sup>. For some, the effects can be devastating...

It is important to consider how a trip can be exacerbated by crashing on an awkward surface, such as a desk-edge, copier or filing cabinet; a danger made more acute for employees in tight work areas. Recently in the UK there have been significant compensations paid to trip-victims who have suffered **fractures, dislocations, loss of earnings, facial scarring disfigurements, fractured skulls and brain injury**. On average **two people per year die as a result of a slip, trip or fall at work**<sup>(4)</sup>.

Apart from risks that trailing cables pose to staff, organisations should note slips and trips are the most reported injury to members of the public too, **causing almost 62% of major injuries**<sup>(8)</sup>.





Some are caused by boxes left across walkways, loose carpet tiles, slippery wet floors, or perhaps uncleared snow and ice, **but where cables are laid to blame such accidents are nearly always easily preventable.** In many cases the cables were not a temporary feature, from, for example, a vacuum cleaner (is cordless an option?) or a power-reel, but had been left unchecked often for weeks, months or years.

Looking at only one solicitor's web postings<sup>(9)</sup> shows the prevalence of the **cable-trip problem, reporting compensation awards** - after a 'client's leg became caught in loose wires'; and one 'hitting his head sharply on the edge of his desk'; another advising 'had her employer secured the cables, the accident could have been avoided'; also a supermarket shopper's 'foot caught in loose wires'... amongst other cable litigations.

The HSE guide 'Preventing slips and trips at work' spells out the duty of employers...

**The Health & Safety at Work Act 1974 (HSW Act)** requires all employers to ensure the health & safety of all employees and anyone who may be affected by their work, so far as is reasonably practicable. This includes taking steps to address trip risks.

The HSW Act also states 'Employees have a duty not to put themselves or others in danger'. A robust Health & Safety policy should make an example that employees do not leave cables trailing as a danger to their fellow workers, and that any breach is reported immediately.

**The Workplace (Health, Safety and Welfare) Regulations 1992** require floors to be suitable, in good condition and free from obstructions. People should be able to move around safely.

**The Management of Health & Safety at Work Regulations 1999** require employers to assess risks (including trip hazards) and, where necessary, take action to address them.

In all instances, specific references are made to trip and fall risks posed by trailing cables.

Directors and management should take personal responsibilities and practical steps to reduce risks and provide a safe working environment, because a person can, under **section 37 of HSW Act**, be fined or imprisoned if a breach is attributable to any neglect on the part of a director, manager, secretary or other similar officer.

Efforts to reduce falls, slip and trip incidents – **the UK's biggest cause of injuries** – has inspired the **HSE's 'Watch your step' and 'Shattered Lives'** campaigns, with many publications available; the call for cable management being a constant recommendation.

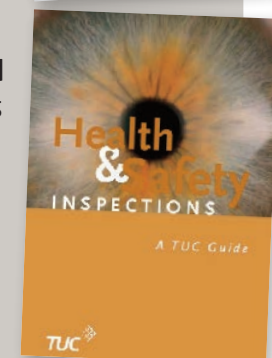
Guideline documents query 'Are there any trip hazards around workstations or in corridors and walkways, e.g. trailing cables...?' with a suggested action '...use cable covers'<sup>(10)</sup>, or simply 'Are trailing leads and cables secured or covered?'<sup>(11)</sup>. Such publications advise employers **'Step 1; Look out for trip hazards; such as... trailing cables,'<sup>(12)</sup> and 'encourage good housekeeping by your workers'**. Also that **'cables, plugs, sockets and fittings must be robust enough and adequately protected for the working environment'<sup>(13)</sup>**

This reference to **'good housekeeping'** has wider implications; numerous case-studies report how a responsible attitude to health & safety helps staff morale and productivity, while an additional possibly costly 'risk' lurks if clients or visitors perceive inefficiency and a sloppy impression created by the cable chaos! – if proof is needed one can see how unsightly and potentially dangerous cabling has featured in many negative Trip Advisor reviews of hotels and restaurants.

The good news is that the costs and risks from cable clutter can be easily sorted; **D-Line offer a complete range of value and innovative cable management products**, as used around the world, **to safely and securely organise cables in ways that are easy to install and most effective!**

#### Sources/further info...

- (1) British Council for Offices (BCO) Occupier Density Study 2013
- (2) examples —BBC News Magazine 2006 'Shrinking office syndrome'; Unison Health & Safety Information Sheet 'Overcrowding' 2010
- (3) D-Line (Europe) Ltd commissioned survey 2013
- (4) HSE 'Watch your step' campaign
- (5) all refs HSE Health & Safety Statistics. Annual Report for Great Britain October 2015, including Labour Force Survey (LFS) National Statistics October 2015; RIDDOR Reporting of Injuries, Diseases and Dangerous Occurrences Regulations.
- (6) European Survey of Enterprises on New and Emerging Risks (ESENER)
- (7) 611,000 reported non-fatal injuries x 28% trips + falls / 365 days  
x 2 estimate of unreported trips x 50% (trips only i.e. subtracting est. total falls)
- (8) HSE 'Slips and Trips Workplace Newsletter... for employees in the health services'
- (9) Thompson Solicitors LLP web posts (1/16)
- (10) HSE 'Slips and trips. Hazard spotting checklist'
- (11) TUC 'Health & Safety Inspection Guide'
- (12) HSE 'Preventing slips and trips at work'
- (13) HSE 'Electrical Safety 2014'
- (14) Source/further info 'Work Fever' report by Allergy UK and Forbo Flooring Systems July 2012
- (15) Electrical Safety First - Core Data Set



# Cable Tidy Units

**'To comply with health & safety legislation and for best practice, containing extension blocks in Cable Tidy Units under desks makes common sense - and a real difference!'**

## Safety



**Overloading socket outlets**, especially socket extensions can cause excessive heat build up and **is a major cause of fires from electricity.**

Floor boxes fitted in screed or cavity floors can provide 13amp 240v socket outlets plus telephone and data points, but, where the workstations using that box require additional socket outlets, adding socket extension blocks is the most popular solution. **A danger arises if these extension blocks are overloaded.**

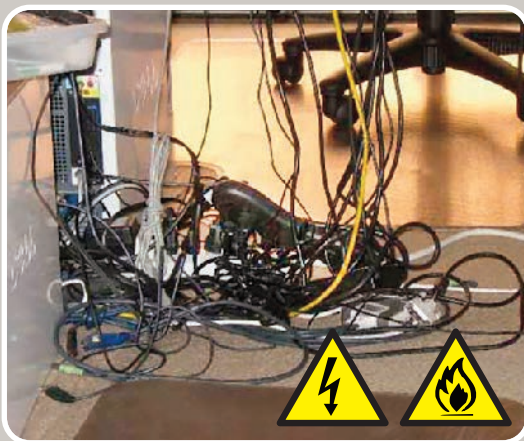
Most socket extensions are rated 13A (3120w capacity), but many have only 10A (1800w capacity), or even lower rating. Plugging-in most popular desk equipment should not pose a problem; laptops and desktop computers generally consume less than 250w each. Note printers can use up to 800w during printing.

While employers might prohibit the use of personal electric appliances - a kettle or personal heater can each consume 3000w, so would instantly overload and blow the fuse of an extension block - there remains a more serious risk if employees wanting yet more outlets decide to plug a second extension block into the first one, so increasing the risk of overheating; or plug an adaptor into an extension block, especially as blocky-type adaptors are usually unfused.

Accepting the danger of a breach in H&S policy, **putting each rectangular-style socket extension block inside a D-Line Cable Tidy Unit represents a practical way to reduce such risk; making the socket block less accessible or less inviting to employees, and an adaptor more awkward to fit.**



It should be considered that however small the risk assessed, enclosing the extension block reduces the possibility of any drink spill on to live sockets. While circuit protection should be effective, **all steps should be taken to avoid the surge and heat that can arise should liquids (conductive) contact with electricity.**



Similarly best practice should consider that when copper cables are fully loaded and form a tight coil to nest around an extension block, some **cables can be fully entrapped so their heat cannot disperse; a danger eliminated by using Cable Tidy Units** (note 17th Edition of IET Wiring Regulations state in BS7671:2008 section Cable Enclosures that when containing pvc insulated cables 'not more than 45% of space within a conduit or trunking must be occupied by cables'; a principle transferable to Cable Tidy Units). **Cable Tidy Units should provide ample space, and require also that the cable from each plug-top must be routed via one of the three rear exit slots...** so further minimising risks from 'excessive' heat build-up. These slotted exits are vents also. Entry and exit cables should be concealed in D-Line Spiral Wrap, Cable Tidy Tubes or Trunking.

D-Line Cable Tidy Units are produced in the UK using electrically safe material, and have been fully safety tested (when overloaded with cables, and vents blocked!). *Copy of BSEN certification, and test report are available on request.*

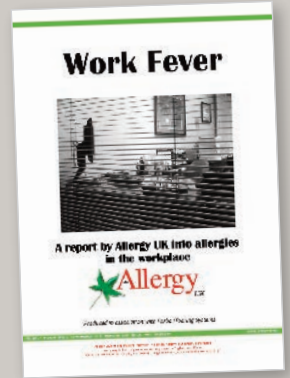


## Good Housekeeping



Around half of adults in the UK suffer from allergies. **After pollen, the most common allergen is the dust mite.**

Though, typically, they are only ¼mm-long, tiny dust mites produce about 20 waste droppings per day. They become very dry and fragment into fine airborne particles we inhale. Dust mites and fleas thrive in carpet floor tiles and in temperatures around 20°C (UK office temperatures average 21°C-23°C), finding a hotspot in any cable clutter under-desks.



Managing such an allergy, often a trigger for asthma and eczema, **requires regular cleaning** – but cleaners will clean where they can easily reach, which can be impossible around cable spaghetti. When we consider most office workers spend 7+ hours per day at the desk, it is understandable why a recent study titled 'Work Fever' highlighted **'42% of workers have taken time off work because of their allergy'**<sup>(14)</sup>

The UK Allergy Centre advises workers in closed spaces to 'take control of your personal desk environment, keep it clear and uncluttered...' while employers must 'ensure cleaners have effective cleaning methods'.

Cable management should be part of any good housekeeping policy. **D-Line Cable Tidy Units** are designed to contain socket blocks and cables in a neat and organised way that **make workstation spaces, including areas under desks, easier to clean.**



## Can anyone install D-Line products?

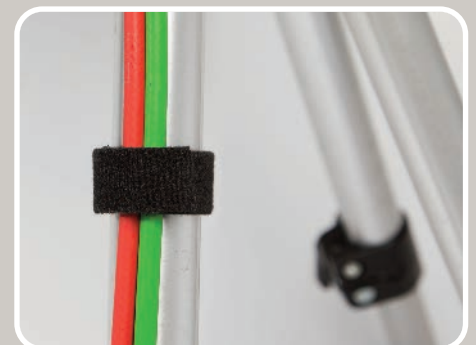
**Yes!** All D-Line solutions are designed as quick and easy to install, **with no electrical competence required.**

## Time management and efficiencies

**'Before Cable Tidy Units** I'd sit at my pod all day with cables around my feet, often twiddling them for habit. It was by accident that one day I must've **tugged at a cable so it disconnected from the monitor opposite me.** It took the technicians hours identifying the fault and, to make it worse, she and I were the best sellers on the floor! I don't want to think of the cost, but at least now most the cables and the extra socket block are in the Unit so the temptation is avoided... while it looks a lot neater - and makes the cleaner's job easier too' O.S. (call centre worker).



Apart from bringing a more professional and orderly appearance to any environment, D-Line Cable Tidy Bases, Clips, Twists, and Band can all keep cables where you want – **so saving time lost by retrieving dropped cables, locating connections or untangling wires.**



## Split insulation, and damaged conductors...



Frayed or split insulation on power cables give a leakage point for current to electrocute. At worst a shock of 240v can be fatal. A similar risk occurs if cables are pulled to strain or loosen a termination point, to leave either an exposed 'live' conductor or broken conductor strands.

Broken conductor strands disrupt the natural flow of current, creating resistance by forcing high wattages over a smaller conductor area, and, over periods, where perhaps power is on 24/7, excessive heat builds up. Becoming glowingly-hot can ignite common office materials such as paper and waste, to start a fire. **In 2011/12 wiring, cables and plugs were involved in 2,899 electrical fires in UK.**<sup>(15)</sup>

Cable management products – that can protect insulation; stop cords twisting and knotting; and prevent tugs and pulls – are **a small price-to-pay for safeguarding from the worst consequences.**



## Desk Trunking or Wire Basket trays?

- D-Line Desk Trunking is produced from self-extinguishing pvc which can easily be cut with a junior hacksaw. A reliable **self-adhesive** backing enables quick peel-and-stick installation to a desk, for example up a desk-leg, vertically from a Cable Tidy Unit up a rear panel, or horizontally between grommet exits on the desk-top. The click-lock lid **makes it easy to add or remove cables**; while the half-round shape and hinge-effect combine to make D-Line Desk Trunking **more gentle on impact**.
- By comparison Wire Basket trays require screw-fixing; are not suited to bespoke sizing; are more prone to snagging and more awkward on impact if knocked.

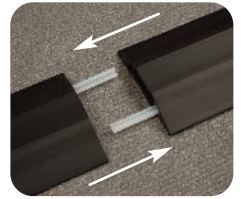




# How to choose Floor Cable Protectors

- The Floor Cable Cover should be sufficiently long to **cover the full length of cable(s)** across the floor.

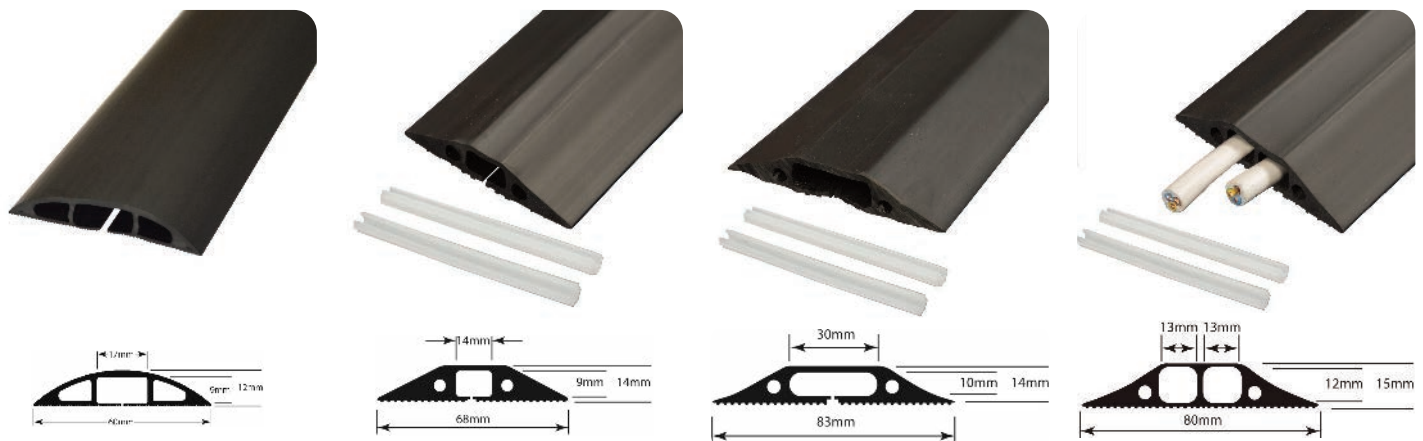
- Where a longer length is required, **any link to a subsequent strip should be mechanically secure** to avoid the run breaking in the event of a kick or knock. Note D-Line's Medium Duty profiles can uniquely be joined by patent-pending push-in pull-out connector rods, that fit the continuous grip- holes along the lengths **so the runs can be as long as needed... 50 metres+** if necessary. The lengths can be cut too, so continuous runs can perfectly match the requirement.



- The Floor Cable Cover must not itself be a trip hazard!...

- This means it should have a **tapered design**, and not a sharp kerb-effect that could be potentially obtrusive
- The strip must be able to **lie flat on the floor**. Beware versions that are overly stiff, prone to curl or twist and never uncoil to lie flat
- Avoid alternatives that are overly thin and flimsy, too lightweight to lay flat and vulnerable to movement after minor knocks

- Consider the size and volume of cables that need to be covered, then select a Floor Cable Cover with a cavity-size that can accommodate the relevant cables.



- Mains voltage and low-voltage cables should be segregated in a compartmentalised profile.

- Value-added features such as a ribbed back can make a strip less likely to slip after being knocked. Likewise a pre-split rear cavity makes it quick and easy to fit the strip over the cables.

Caution 1 - if preferred, after inserting cables, users can affix Floor Cable Covers to a floor by applying heavy-duty double-sided tape. Take care to ensure the floor is clean and dry so an effective bond can be made. Beware such tapes may leave a residue on removal.

Caution 2 - do not put cables under carpet tiles, or under surface tapes. This will provide less protection for the cable, with a greater likelihood that 'wear' will lead to a 'tear' in the outer sheath of the cable, especially any thin rubberised insulation.

- Using only a tape will not offer the same **protection against the cable becoming frayed, or pinched under the leg of a chair or desk**. As previously, beware the electrocution risk of exposed conductors and how broken conductors can lead to power failures, heat build-ups and fires.



# Make your workplace cable-safe!

D-LINE

## Cable Tidy Unit - Large Black

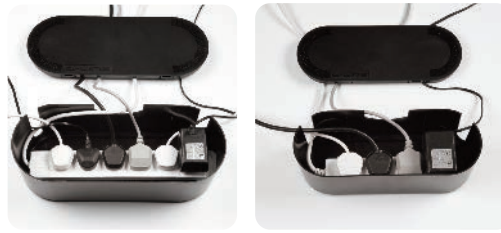
for up to 6 way extension blocks  
415mm W x 165mm D x 135mm H

CODE: CTULGEB/SW

## Cable Tidy Unit - Small Black

for up to 4 way extension blocks  
325mm W x 125mm D x 115mm H

CODE: CTUSMLB/SW



Contain extension blocks and cable spaghetti.  
Reclaim desk/floor space, make cleaning easier & extension blocks less accessible, neatly route cables & minimise trip hazards  
Fully safety tested  
Robust ABS construction

## 50x25mm ½ Round Desk Trunking

1.5m length, Self-Adhesive, Hinged & Click-Lock Lid, WHITE

CODE: 5FT5025W/EH



Hide & route cables around desks/offices  
Also ideal for wall mounted screens  
50mm (w) x 25mm (h)  
Other sizes & colours available on request

## Cable Tidy Tube - Black

1.1m length, 32mm diameter pre-split tube

CODE: CTT1.1B



Tidy & protect cables dropping behind desks  
Flexible & easy to use  
No application tool needed

## Spiral Wrap - Black

2.5m length, Expandable 14-40mm diameter

CODE: CTW2.5B



Versatile, easy to exit cables at any point along length.  
To wrap around bundles of cables up to 40mm diameter.  
Good resistance to oils/lubricants, acids & alkalis

## Medium Duty Linkable Floor Cable Cover

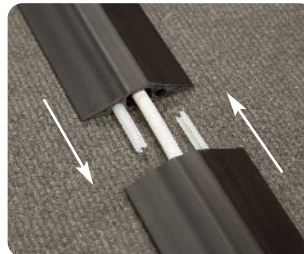
1.8m length, 68mm wide, c/w 2 connectors

CODE: FC68B

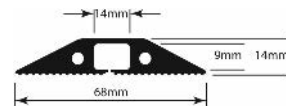
## Medium Duty Linkable Floor Cable Cover

9.0m length, 68mm wide c/w 2 connectors

CODE: FC68B/9M



Protect cables and prevent trips & falls  
For busy foot traffic, linkable for longer runs.  
Cavity Size: 14mm w x 9mm h



## Medium Duty Linkable Floor Cable Cover

'Hazard' stripe, c/w 2 connectors

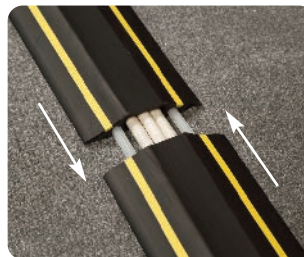
1.8m length, 83mm wide

CODE: FC83H

## Medium Duty Linkable Floor Cable Cover

'Hazard' stripe 9.0m length, 83mm wide c/w 2 connectors

CODE: FC83H/9M



Protect cables and prevent trips & falls  
For busy foot traffic, linkable for longer runs.  
Hazardous stripe  
Cavity Size: 30mm w x 10mm h  
(can protect up to 3 x 8mm diameter cables)



## Light Duty Floor Cable Cover

1.8m length, 60mm wide

CODE: CC-1

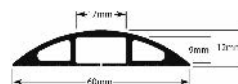
## Light Duty Floor Cable Cover

9.0m length, 60mm wide

CODE: CC-1/9M



Protect cables and prevent trips & falls  
Light foot traffic areas.  
Cavity Size: 17mm w x 9mm h  
(can protect 2 x 8mm diameter cables)



## Cable Tidy Bases

2x White, 2x Grey, 2x Black self-adhesive bases

CODE: CTBASE6MXD



Save time retrieving dropped cables - by keeping cables accessible

Also available in lots of 100+ per colour

## Cable Tidy Band

Hook & loop band, 1.2m length

CODE: CTTAPE1.2B



Re-usable band to organise cables in the workplace, or on the move  
Easy to cut to required length  
Fully safety tested to hold 10kgs with 50mm overlap



## Cable Tidy Clips

6x Self-adhesive clips. Low profile design

CODE: CTCLIPSA6W



Self-adhesive pvc clips, to attach cables to surfaces

Also available in lots of 100+