COUNTERTOP SOCKETS ARE SPLIT INTO TWO TYPES

A - Hard-wired receptacle assemblies
are Certified (Listed) for use in kitchen and bathroom countertops physically attached to the building structure under the product category Receptacles for Attachment Plugs and Plugs (**RTRT**).

Hard-wired receptacle assemblies are investigated for compliance with the requirements in **ANSI/UL 498**.

The guide information for **RTRT** details that a UL Conforming pop-up receptacle assembly consists of a retractable flush-mount receptacle, outlet box and flush device cover plate intended for **fixed installation,** on a branch circuit**.**

UL 498 asks for the Countertop Device itself to be completely **un-corded**, and additionally that . .

1. All its mains wire connection points should be part of the structure of the device itself, and
2. Because of this, the device must be permanently fixed in its location so that it is as sealed, unmoveable and as unreachable as a wall junction box. Its live wire connections are effectively isolated and safe.

SUMMARY – Because UL 498 requires a pop-up receptacle to be both Uncorded and a fixed installation design, THIS ALSO REQUIRES THE SURFACE INTO WHICH IT IS INSERTED TO BE PHYSICALLY ATTACHED TO THE BUILDING STRUCTURE AS WELL.

These "permanent" and "fixed" criteria are the exact reasons why an S-Box™ cannot be included in that Standard.

KITCHEN ISLANDS AND CABINETRY ARE NOT PERMANENT STRUCTURES. They ARE Stationary of course, but are inherently move-able and replace-able at any time, completely independently of the Building's "structure".

B - Cord and plug-connected receptacle assemblies (and FPDU)
are Certified (Listed) for installation into **stationary furniture countertops** under the product category Furniture Power Distribution Units (**IYNC**).

Cord and plug connected assemblies are investigated for compliance with the requirements in **ANSI/UL 962A**

The guide information for **IYNC** details that FPDUs for kitchen and bathroom countertops are intended **for connection to a permanently installed receptacle** on a branch circuit rated 125 V AC and 20 amperes or less.

An S-Box™ is deliberately NOT fixed in its rebate, so that it can be extracted at any time.

a) In the event of a spillage event, so it can cleaned and dried and re-inserted.
b) Should it need to be adjusted for speed of lift or to retrieve any solid that has dropped into its mechanism?
c) To undertake any adjustment of its flush finish with the Counter, or repair of its custom top.
d) To replace any operational parts, such as its catch mechanism.
e) To enable its complete replacement or upgrade to another model of the same size.
f) To correct any installation error whatsoever, or to disconnect it from its power connection.

The unique design and installation parameters of the S-Box™ mean that it actually cannot be, and does not wish to be, a "fixed" item.

It is also plain fact that the Kitchen Island into which it is being inserted is itself made of cabinetry and temporary non-permanent furniture. All kitchens are constructed from modular or hand-crafted materials (such as Timber, Mdf or similar) and whilst they are of course "stationary", they are also inherently remove-able, up-grade-able, and change-able at any time, either by the existing home-owner or any *new* home-owner who chooses to do so after purchasing an existing dwelling. Its Worktop is also not structurally 'permanent', albeit well-fixed to that cabinet island.

Such features are fundamental to the entire Kitchen Industry's existence, and is no different in the US/CAN

Summary?

The UL 498 standard is for un-corded products that must be fixed and permanent in their location, not only by way of their very design and construction, but also because of the method of their direct wire electrical connection. This is the **real** reason why the locations they are going into have inherited a 'building structure' description status, purely to conveniently correspond with the design and permanent fixed nature of the products themselves.

Until S-Box™ was developed and patented in the USA & CANADA, the ONLY countertop products that were available were ALL fixed "Tower" designs, principally from the office and commercial desk market.

On first transfer from that market to the Kitchen Counter one, their existing plug and cord design remained at first, but because they could not be removed, and were actually a fixed power point, and over time the Kitchen Island, cabinet Wall units and peninsulas began to be regarded as being "building structure" . . when in fact they are simply stationary furniture 90% of the time.

Examples of fixed installation countertop power points:






All the above products have to be listed under UL 498 because of their method of fixed/physical installation.

CONCLUSION

It actually does not matter whether a Kitchen Island is regarded as "stationary furniture" or "attached to the building structure", it is purely the nature, design, and method of installation of a pop-up socket product itself, that dictates whether its compliance falls under UL 498 or UL 962A.

In other words . .
The electrical connection for Countertop Sockets in Kitchen Countertops and Islands can be

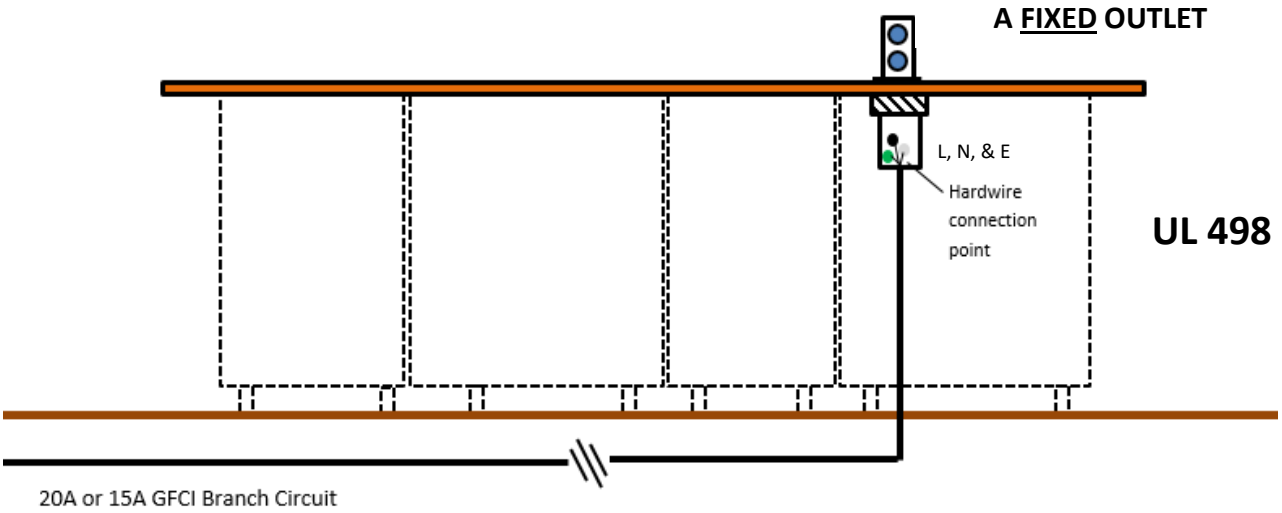
EITHER

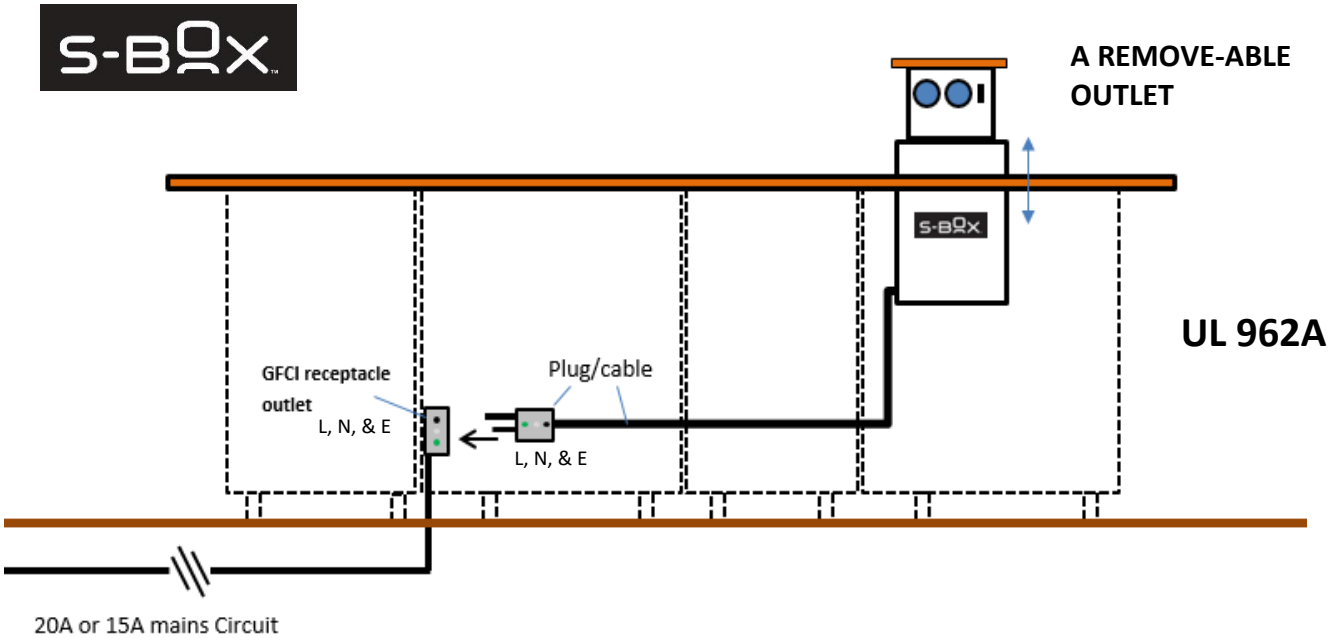
1. **Via a static-mounted receptacle within the Island. . into which a product's cord and plug is inserted**

   OR
2. **By a mains wire connection directly into a product; a product that itself is fixed**.

S-Box™ products are fully compliant and correctly listed for use in kitchen and bathroom countertops.
It is their extractability and unique design that means they must be **corded** and therefore classified as an FPDU, rather than a hard-wire only device.

Any sequitur between a kitchen island's structural classifications being either permanent or stationary furniture **is completely irrelevant**. It is the location of the live electrical connection itself that determines the UL Standard of any pop-up socket's Countertop compliance.





S-Box® is a registered trademark

US Patent No.8899701

Cardinal Innovations Ltd
Fernhill House
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Street
Bradford West Yorkshire
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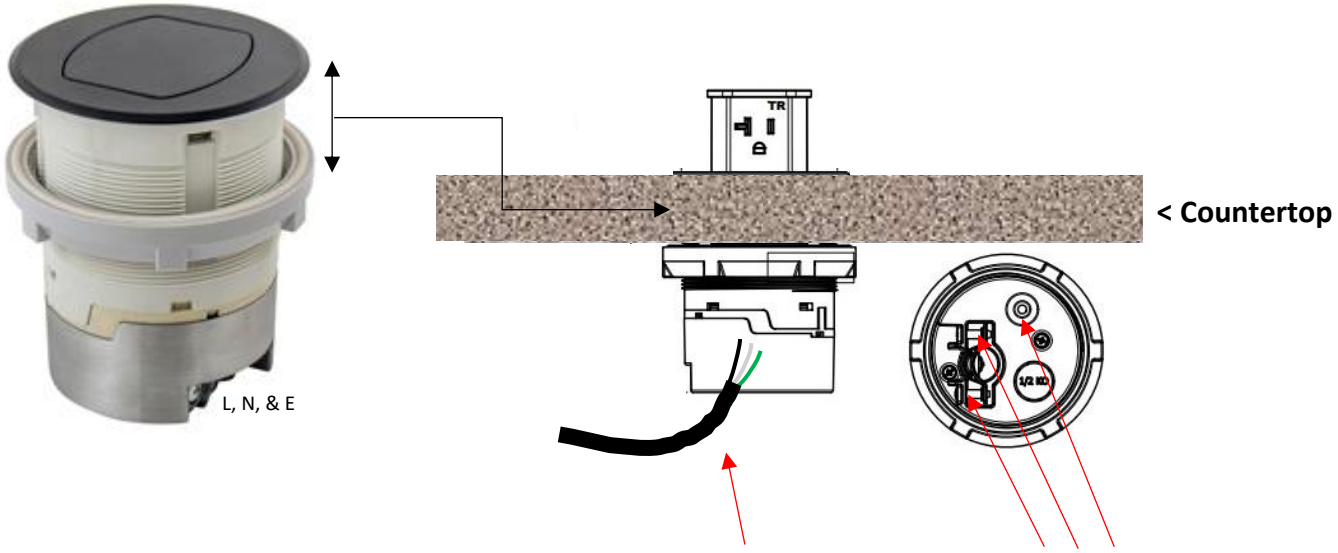
ADDENDUM (EXAMPLE)

The Hubbel product is permanently fixed into its countertop location by way of its threaded clamp design.



It requires an electrician to then directly connect L, N and E mains circuit cable wires to the L, N & E connection points **built into the structure.** It has effectively now become a fixed junction box, the top of which happens to spring up to present its single plug outlet.

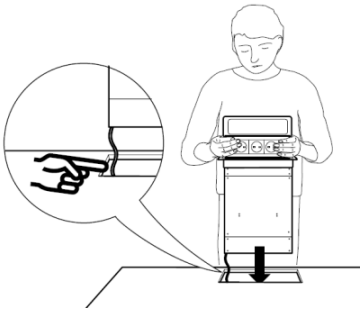
BY CONTRAST . . .

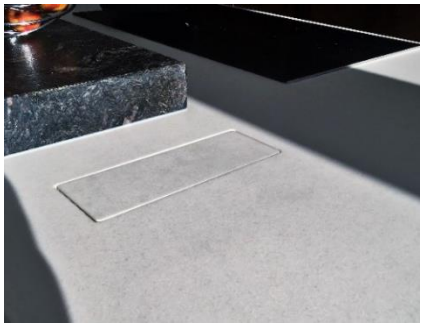
The S-Box™ Chameleon Models are specifically designed for installation at exactly -20mm <u>below</u> surface - for an invisible and camouflaged location in the Counter.

This enables pop-up sockets to remain hidden from view until they are required!

All S-Box™ Chameleon units drop into position from above. No fixings required. They are self-contained, fully pre-tested SOLID STEEL ENGINEERING items . .

. . with 2.4m pre-fixed Cable & Plug Lead for insertion into local receptacle outlet within Cabinet structure





Intertek
5026088
FURNITURE POWER DISTRIBUTION UNIT

Certified (Listed) for installation into **<u>stationary furniture countertops</u>** under the product category Furniture Power Distribution Units (**IYNC**).

"Unit shall be Connected to a GFCI Receptacle/outlet"

"Suitable for installation in a kitchen or bathroom counter top surface"