Critical appliance - Extending product lifespan through critical design

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Critical Appliance: extending product lifespan through critical design
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Critical Care: extending product lifespan through critical design
There are professions more harmful than industrial design, but only a few of them.’

(Papanek, 1971)
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1.4 million tonnes = 160 million tonnes CO² (wrap 2014)
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‘Increasing the lifetime of lower-end products to match the current market average would save 150,000 tonnes of resources and almost 750,000 tonnes of CO2 per year.’ (WRAP, 2012)
Design for Product Attachment and Trust
Creating products that will be loved, liked or trusted longer

Design for Product Durability
Developing products that can take wear and tear without breaking down

Design for Standardization & Compatibility
Creating products with parts or interfaces that fit other products as well

Design for Ease of Maintenance and Repair
Enabling products to be maintained in tip-top condition

Design for Upgradability & Adaptability
Allowing for future expansion and modification

Design for Dis- and Re-assembly
Ensuring products and parts can be separated and reassembled easily

(Bakker, C. de Hollander, M. Hinte, Ed van, Zijlstra, Y. 2014)
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PPPP (Dunne & Raby, 2013)
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Maintenance prompts
Icons are displayed to prompt maintenance or repair when necessary triggered by sensors or the use counter at set service intervals.

Variable temperature setting, allows desired water temperature selection, saving energy during use and extending the life span of the element.

The display remains illuminated to indicate water temperature as it cools, this may prevent unnecessary re-heating.

Maintenance encouraged
The part number, SW003, signifies that this is the third generation switch incorporating new features and technology to enhance the durability and efficiency of the component.

SEN004 - thermistor represents a significant upgrade on steam sensors facilitating variable temperature heating and rapid switch-off helps save energy.

USER SERVICEABLE PARTS INSIDE
Replacement parts can be ordered online and will be delivered with return packaging to allow faulty parts to be refurbished and reprocessed and the reprocessed components reissued.

This product and service model represents a shift in the relationship between the consumer and manufacturer.

KETTLE

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Access to the internal components for the purposes of repair and upgrade quick and easy.

Outer casings peel away to give access to the electronic components.

Screen, switch and circuit components can be replaced or upgraded.

Cable connectors are waterproof power couplings allowing safe, simple and fast disconnection of key components for maintenance repair or upgrade.

Designed to never allow contact with live power supplies, the 'live' end always terminates in a female connector ensuring user safety when disconnecting key components.

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- **extend product lifespan**
  - facilitating maintenance & repair

- **democratise repair**
  - safety for the consumer

- **modularised system**
  - facilitates upgrade

- **clear semantics**
  - helps to understand

- **integrated prompts**
  - ensures timely care & diagnosis

- **materials and forms**
  - promoting long life
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