The colors of intuition

Innovative building- and room-control solutions win prestigious red-dot award

BERNHARD DÖRSTEL, PETER SIEGER – New technologies, while capable of making life better, can occasionally lead to frustration through their complexity. Developing a technology that is not only innovative but also intuitive can challenge even the brightest designers. In the area of building technology and room control, ABB has met that challenge: A part of the Busch-Jaeger Living Space concept, the Busch-ComfortPanel® (for building management) and Busch-priOn® (for room control) were jointly awarded the “red dot: best of the best 2008” prize for their intuitive user-control system. Busch-priOn is a modular control system for KNX-based building system technology. The concept enables the switching of lights, heating, air conditioning and home electronics from a single central position in a room that can also activate “living scenes” – preprogrammed settings that, eg, dim the lights, close the blinds and play one’s favorite music all at the same time.

1 Triple control element of the Busch-priOn® control system

The backlit colored symbols identify the functional areas: lights (yellow), blinds (blue) and living scene (magenta).

2 The control system of the Living Space® solutions is complemented by easy-to-understand functional symbols.

The Busch-ComfortPanel® display

Increased functionality and ease of use are the qualities that set a new technology apart from the others. Busch-priOn is one such technology. Following the principle of "simplexity" – simple controllability and focus on the essential – the user can intuitively control even complex functions. This concept is based on the idea that any simplification is welcome in an ever more complicated world.

A multipurpose control unit

The Busch-priOn distributed room control unit bridges the gap between the company's classical switch program and modern panel solutions. It provides clear and intuitive control of building-system technology components such as illumination, heating, air conditioning and blinds. A central aspect of its comfortable use is the color-oriented control concept. And thanks to its modular structure, Busch-priOn can be individually adapted to the user's needs → 1.

The availability of a wide variety of functions provides real freedom to customize individual needs. Lights, blinds, and consumer electronics can be controlled individually or integrated into complete "living scenes." This allows the desired backdrop to be created at the touch of a button: The light is dimmed, blinds are closed and one's favorite music is played.

During the customer-oriented development process of Busch-priOn and Busch-ComfortPanel, simplicity and ease of use were accorded top priority. In fact, the idea was that users would not need a manual to navigate through the panel's menu.

The central module consists of the Busch-priOn, a 9 cm (3.5 inch) high-resolution thin-film transistor (TFT) graphic display combined with a rotary control element. The touch-screen display features a circular menu with specially designed icons combined with clear text, showing the eight functional areas that can be selected with the rotary control element and activated with a push of a button → 2. A ring-shaped, colored "aura" indicates at a glance which functional area is currently

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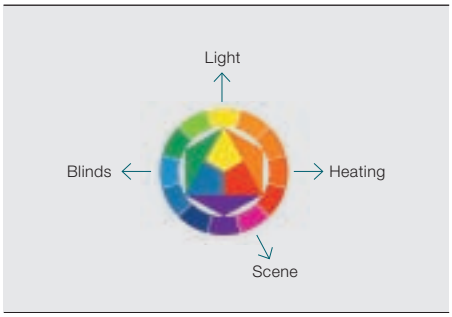
A red dot for Living Space

Busch-Jaeger's innovative Living Space platform also won the "red dot: communication design 2008" award. This virtual presentation platform allows intelligent building control technology to be explored interactively. Using a virtual house outfitted with Busch-Jaeger technologies, the user can experience the advantages of the products. The result is a sophisticated and aesthetic room reflecting the special brand and design philosophy of the company. This virtual solution and experience world was presented for the first time at the Light+Building 2008 fair in Frankfurt, Germany.

3 Winner of the "red dot: best of the best 2008" award

Busch-priOn, the modular room control unit for KNX-based building system technology. Functions can be easily selected with the rotary control element, whose colored aura indicates the chosen function (here, blue for blinds).

4 Busch-priOn's color-oriented user-control system utilizes four colors.



Each color – yellow, blue, amber and magenta – is logically assigned to a different functional area.

Busch-priOn uses state-of-the-art low-power processor technology and an advanced display with LED backlighting.

activated ➔ 3. Three different screen representations are available, which can be selected according to the user's individual taste.

Using an additional device – the so-called media box – radio and video components can be controlled as well. With the Busch-ComfortPanel, the layout of a house, including the location of the controls, can be clearly depicted.

Each function can be quickly selected and controlled. Individual lamps can be controlled and dimmed directly. Shutters and blinds can also be operated with the rotary control element, and the temperature in the building can be set for each room using the individual-room temperature-control function.

The rotary control element of Busch-priOn can be combined with or extended to different modules. All control elements of the system, including the TFT display, feature a switch-selectable day and night illumination that allows the level of brightness to be adapted accordingly.

In addition, the control panel features rocker switches, which can be used to select freely programmable functions. When the panel is deactivated, it works like a regular switch triggering a predefined primary function when the rotary control element is touched.

Extra comfort and energy efficiency is provided by an optional infrared receiver and proximity sensor on the upper border strip of the Busch-priOn. This combines design and function in an intelligent way: When an occupant comes close, it automatically activates the background illumination of the room control unit. Similarly, the lower cover strip can be combined with a temperature sensor, so a room-temperature controller is possible.

The winning feature: color

Busch-priOn and Busch-ComfortPanel feature an intelligent, color-based user-

control concept that color-codes each functional area ➔ 4. For example, all illumination functions are identified by the color yellow (symbolizing the sun and brightness), heating functions are marked amber (for warmth and comfort), the blind control is labeled in blue (symbolizing coolness and the color of the sky), and magenta – symbolizing extravagance, theater and staging – is used for light scenes. These codes are language independent and can be internationally understood. This feature can be complemented by easy-to-understand functional symbols, making any text labeling of the user interface unnecessary.

Busch-priOn and Busch-ComfortPanel feature a language-independent, color-based user-control concept that color-codes each functional area.

The elegant, flat design of the control panel matches any interior design style and is available in glossy white, glass white, glass black and stainless steel finish with a special anti-fingerprint coating.

The red-dot award

The innovative user-control concept of Busch-priOn received the prestigious “red dot: communication design 2008” award at the end of 2008. With more than 10,000 applications from 60 countries, the red-dot award is one of the largest design competitions worldwide, and is a coveted trophy as an internationally renowned symbol of design quality in three areas: product design, communication design and design concept. The world-renowned reputation of the award is ensured by a panel of judges consisting of internationally recognized designers and design experts from around the world.

Judges examined nearly 6,000 entries from 39 countries for the communication design award. Of these, only 38 submissions were awarded a “red dot: best of the best” prize for particularly excellent design achievements. The Busch-ComfortPanel and Busch-priOn were among the winners, receiving the award for their intuitive user-control system ➔ 3.

The supporting technology

Busch-priOn is based on a modular, individually configurable support frame concept. A sub-bus system ensures an energy supply to the individual modules as well as the data communication between the modules. The system uses state-of-the-art low-power processor technology and an advanced display with LED backlighting.

Busch-priOn is suitable for private homes as well as for functional buildings. The fact that only a single flush-mounted box is needed for each configuration, no matter whether a single or combined unit is used, makes it particularly interesting for refurbishment projects. All units are compatible with ABB Powernet® EIB/KNX and ABB i-bus® EIB/KNX.

Electricians benefit from a fast and trouble-free commissioning of Busch-priOn. Not only is the programming procedure well known, the programming can also be stored on an SD card in the workshop and then transferred into the system on-site.

A device for efficiency

Busch-priOn is an advanced user-control device for building-system technology with an intuitive user-control concept and numerous customizable functionalities, boasting technical innovation, elegance and accessibility. And by carefully controlling the lights and heating, the device is helping to increase energy efficiency.

Parts of this article were previously published in “Living Space,” *ABB Review* 4/2008, pages 11–14.

Bernhard Dörstel
Busch-Jaeger Elektro GmbH
A member of the ABB Group
Lüdenscheid, Germany
bernhard.doerstel@de.abb.com

Peter Sieger
Sieger. Agency for Business Communication
Halver, Germany
sieger@buero-sieger.de