CORTRON – SUMMARY OF BACKLIGHTING

Cortron often provides keyboards, keypads and pointing devices for use in applications where backlit keys may be required or desirable. Backlighting can improve user ergonomics, productivity, workplace satisfaction and comfort in night or low ambient light conditions.

The following is a brief overview of options / information related to Cortron Backlighting. Please contact Cortron for additional information or details to meet your particular application requirements.

Black Keys with white / translucent (Negative Image) key legends: Cortron utilizes black keys with a white translucent key image, which is illuminated from behind via reliable LED backlighting. The black, negative image keys provide high contrast images for daylight readability, while allowing LED backlighting to illuminate the key image in dark or low light environments.

Low Power Backlighting. Current Cortron products derive their backlighting power from the host PS2 or USB interface. Cortron utilizes high intensity, low power LED's for backlighting the keys while still staying within the power supply limits of standard computer interfaces. Various keyboard designs have slightly different power requirements, but most backlit keyboards power requirements (including normal keyboard operation) range from 350mA to 500mA.

Backlight Control. Backlight control can be via 3 standard methodologies:
a) Cortron standard backlighting control is via keys on the keyboard. This highly reliable method uses the key codes sent either by dedicated keys or via 'front legends'. The backlight codes are 'keyboard centric' and are not transmitted to the host.
b) Knob control. Cortron can also install an analog knob for backlight control. Cortron typically recommends the higher reliability of keyboard keys as described in item 'a', but some customers prefer a separate analog style knob for backlight control. We find, however, that this knob can sometimes be broken off by direct impact or even foot traffic.
c) Remote. Remote control can either be via analog voltage (as voltage varies, backlighting control follows the voltage) or via remote codes. Typical remote coding is via direct PC connection and is separate from the keyboard interface. Custom interface controls can also be made available, however, the customer will need to identify and integrate such codes into their host system.

   Note that keypads or trackballs can be controlled remotely by Cortron keyboards. This control is direct and not through the host system.

Backlight Levels: Cortron backlighting can be varied from 0% to 100%. Typical backlight control provides lighting in 16 to 64 (product dependent) discrete levels. Backlighting control can be either linear or exponential. Standard backlighting levels are via exponential increments.

Specific lumens output is not typically specified for Cortron keyboards, as backlighting levels are 'relative' and may vary from keyboard to keyboard due to differences in LED's and colors utilized.

Options for backlighting levels include control with or without adjustment of Indicator Status LED's (num lock etc.) to 'follow' backlighting level as the backlighting is low or nearly off. Typical Indicator Status LED's are adjustable to 6% of standard levels. Contact Cortron for availability of this option.

Backlight Colors. Cortron backlighting is available in Green (standard), red, amber, white and blue. Other colors are available upon request.

NVIS Backlighting: Cortron backlighting is currently available in NVIS Class B, Green A or B per MIL-STD-3009. When NVIS backlighting selected, the light generated is inherently 'NVIS' and does not require an 'NVIS Mode' switch. Adjustment of NVIS backlighting is available per standard backlighting controls as described above.
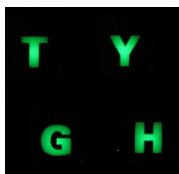
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The following are samples of various standard backlighting colors. Pictures are approximate and color s and brightness may vary. Note: Legends used do not change for different colors – so if keys appear different, it is not due to the color used – the products pictured may be from different keysets / designs.
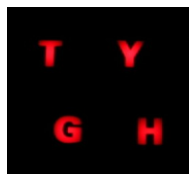

Keyboard and trackball with Green Backlighting

2" DuraTrack Trackball with Blue Backlighting

| Green | Red | Blue | Amber | White |

Sample Backlighting Colors

Please contact Cortron for additional information regarding color and legend design options.

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