

Graphic Overlay

Checklist

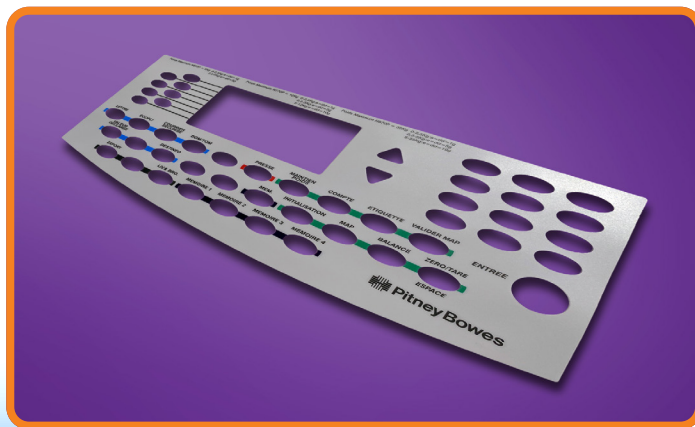
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The design of a Custom Graphic Overlay is often critical to creating a new electronic system or device since it forms the HMI (Human-Machine Interface) of the product that controls and indicates status. As a product designer, you must consider many factors about the application and use, with no two projects being the same.

When designing a graphic overlay three main questions need to be asked at the concept design stage.

1. What is the application?
 - Commercial, Mobile, Medical etc.
2. Are there any environmental factors?
 - Weather, Dirt, Lighting Conditions etc.
3. What surface is the overlay being applied to?
 - ABS, Nylon, Powder Coated etc.

Once you have identified the main challenges your product will face during its life cycle, these following checklist points should be easier to review.



ENVIRONMENT

Indoors components might require durability to heat or require illumination while outdoor operation might need to be sealed and weatherproofed.

STERILE TOUCH

Some sterile environments may require an anti-microbial based material that inhibit bacterial growth.

CHEMICALS

Industrial chemicals and solvents may have a damaging effect on printed graphics or surfaces. Reverse printing on a substrate and sealing the unit may offer better protection for your HMI.

LIGHTING CONDITIONS

Some types of lighting conditions cause glare that make an overlay window definition more difficult to read. Special gloss and antiglare materials can help maximise legibility, including different types of anti-glare lacquers.

BACKLIGHTING

Backlighting not only improves the look and appeal of your Overlay but also improves the legibility of status indicators in most lighting conditions.

Options include:

- EL and LED Driven lamps
- LED driven Light Guide Film (LGF)
- Acrylic Edge Lit Tiles

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ABRASION

In conditions that experience heavy operational use, it may be necessary to use a rugged substrate material. RH graphic overlays are generally constructed from polyester. Polyester is very durable and works well with modern interface technology; allowing proper actuation of membrane switches within the keypad. RH will suggest other materials if a special construction is required.



THE FINISH

Different surface finishes may be achieved through combinations of the substrate material and printing technic.

Finishes include:

- Gloss/Matt
- Non-glare
- Patterned
- Resin Doming
- Textured
- Metals

PRINT EFFECTS

Digital printing can produce effects that are unachievable on screen presses. Having the option of either press increases the possible results.

Effects include:

- Fades, Gradients, Transparencies
- Custom Spot Colours
- Photographic Imagery



EMBOSSING

Precision embossing adds both style and tactile response to your membrane keypad. The operation of an HMI is greatly enhanced by the sensation of raising keys and switches.

Styles include:

- Perimeter
- Pad/Pillow
- Pseudo Tactile
- Selective Resin Doming

Custom graphic overlays play an essential role in defining the end-users experience and create a powerful first impression for a company. If you have any questions, please contact RH, we are here to help!