

Membrane Switch Design Checklist

A practical design review sheet for custom membrane switch stack-up, materials and production readiness.

Use this checklist during design review before tooling, sampling or supplier transfer.

Design reference

Project / model

Drawing revision

Artwork revision

Circuit revision

Target application

Reviewer/date

Overlay and user interface

- ☐ Overlay material is selected: polyester, polycarbonate or other specified film.
- ☐ Surface finish is defined: gloss, matte, velvet, hard coat or textured.
- ☐ Colors are specified with Pantone, RAL, CMYK or approved sample reference.
- ☐ Windows, display areas, LED windows and dead-front icons are dimensioned.
- ☐ Embossing, debossing, rim emboss or flat key areas are marked.
- ☐ Graphic legends are checked for spelling, language, orientation and safe margins.

Switch construction

- ☐ Tactile, non-tactile or mixed zones are identified.
- ☐ Metal dome size, force and life expectation are chosen or left for JASPER recommendation.
- ☐ Spacer openings support reliable actuation and prevent shorting.
- ☐ Circuit routing avoids sharp corners, weak bridges and high-stress tail bends.
- ☐ Tail reinforcement and bend direction are defined.
- ☐ Back adhesive is matched to the housing material and surface texture.

Assembly and environment

- ☐ Housing flatness, mounting surface and gasket interface are reviewed.
- ☐ Sealing target is stated if water, dust, oil or cleaning exposure is expected.
- ☐ LED, backlight, shielding, venting or display integration details are marked.
- ☐ Operating temperature and storage temperature are known.
- ☐ Expected actuation life and inspection requirements are stated.
- ☐ Packaging method protects overlay surface and tail during transport.

Design release package

- Final mechanical drawing with tolerances.
- Final vector artwork with color references.
- Circuit drawing, schematic or Gerber files.
- Stack-up requirement or approved reference sample.
- Connector/pinout confirmation.
- Written approval for sample, color, force and surface finish.

Release decision

Approved for quotation

Hold for drawing update

Hold for connector confirmation

Approved for prototype tooling

Hold for material confirmation

Notes

Send drawings and requirements to JASPER engineering

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