

Quality Standards

At Newhaven Display we strive every day to provide our customers with the highest quality products. This means Quality, Engineering, and Manufacturing teams are aligned to exceed your expectations.

Our customers should expect their products to meet or exceed the following standards:

All Products

Reliability Testing	Customers can expect all production parts to meet or exceed operational requirements over temperature, humidity, and vibration.
Glass Cleanliness	Customers can expect glass to be protected by liners and presented mindful of cleanliness standards. This means glass will be clean of contaminants, fingerprints, and other foreign material.
Bezel Appearance	Bezels will be uniformly painted free of foreign materials and distracting cosmetic blemishes. Our standards maintain a clean scratch-free surface.
PCB Appearance	PCB's are delivered with long-term reliability in mind. Finishes are free of bubbles, foreign contaminants, and meet all UL fire requirements. PCB materials will always be delivered within industry norms. PCB edges will be cleanly cut and void of burrs.
Soldering	Soldering of all leaded and SMT components is consistent in providing the mechanical security and electrical connectivity.
Consistency	Our manufacturing and inspection processes ensure product consistency from lot to lot. This means orders processed over the years will continually meet your expectations. We do this by exacting manufacturing specifications, with attention to detail in our processes, and by comparing to the golden units.
Product Integrity	Quality in product manufacturing ensures integrity in construction. Customers can expect tight assembly without worry of loose parts or missing material. Our products will meet all environmental expectations including temp, humidity, & vibration conditions.
Glass Color	While normal variations of glass color may occur (due to manufacturing tolerances), Newhaven Display maintains color compliance per internal approved color charts. These charts are maintained to ensure any minor glass deviations are identified and corrected as needed.
ESD Protection & Safety	All devices are designed and handled in consideration of ESD protection. This includes ESD-SAFE packaging within anti-static bags, wraps, and trays. Customers are reminded to always follow ESD safety to best protect the devices.



COG Displays

Pins	<p>Pins will be fully secured to the glass, ensuring electrical connectivity. UV cured glues securing those pins will be contained only to the pin area keeping other surfaces clean. The IC on the COG will be protected with a silicone fill to protect it and the associated traces from any environmental damage. Pin lengths will be in-tolerance per specifications lacking any bent pin abnormalities.</p>
Construction Quality	<p>COG devices make extensive use of adhesives within their manufacturing process. These adhesives are necessary for proper assembly and operation of the products. These adhesives are specially selected for optimum performance in the expected environments. Adhesives may become weakened under the circumstances of extreme heat and/or humidity. Though varied by design, this is the industry norm. Always use devices within the specified environmental ranges. Adhesives may also become weakened under constant force. Assembly techniques that may place undue force should be avoided to maintain the integrity and quality of the COG device.</p>

Capacitive & Resistive Touch Panels

Cleanliness	<p>We understand the importance of cosmetic appearance. Critical inspections are verified at point-of-manufacture, during onsite testing, through IQA (inbound testing), during TFT assembly, and again at OQA (outbound). Testing verifies full screen functionality, swipe responses, and all cosmetic criteria.</p>
Responsiveness	<p>All touch panels will demonstrate the responsiveness as expected. This means no dead spots are acceptable and no ghosting should happen (as long as proper design techniques and grounding are provided). Capacitive touch panels will recognize touches by gentle touching of the fingertip. Resistive touch panels will recognize touches by the normal expected force applied by a fingertip. The usage of mechanical pointer devices not required.</p>
Durability	<p>Both capacitive and resistive touch panels are rated to 1M presses. This ensures long term reliability. Capacitive touch panels have a glass hardness rating of 6H per the industry-wide Mohs scale. Resistive touch panels generally have a lower scratch resistance as they are typically constructed of acrylic layers (not glass).</p>

Flexible Printed Circuits (FPC)

Nicks and Dents	<p>Nicks are not allowed as these may result in tears. We implement a “NO-NICK” policy to protect our customers from tears that could otherwise occur. Dents to FPC’s are indicative of poor material handling. We take every possible measure to avoid these. Customers should expect dent-free FPC cables.</p>
Folds	<p>FPC’s are manufactured and handled with care to prevent the presence of permanent creases. Permanent folds are never acceptable and we will never deliver creased FPC’s. Larger trays are commonly used to accommodate straight flexes.</p>
“Golden Fingers”	<p>Our designs include both ‘gold’ and ‘carbon’ fingers. Each of these should be treated similarly. There will be no “foreign materials” (such as glue) on the finger surface that might prevent proper electrical connection. Golden fingers will not have excess scratches exposing the other metals beneath. Golden fingers may exhibit small microscopic probe points. This is normal and indicative of the testing undergone through our many quality checks. Golden fingers may exhibit minor color changes in hue. These minor variations will not impact functionality.</p>

Backlighting

Color Variations	<p>Newhaven Display offers display products paired with many different backlight options. We do our best to ensure the coloring of the end product matches that of the golden unit and meets expectations. Color blending, (missing combinations of RGB) may result in millions of unique color hues for customers to choose. Only the primary white and RGB colors are under tight process control. We cannot be responsible for custom color blended combinations.</p>
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Packaging

Trays and Wraps	<p>Customers can expect their products leaving Newhaven Display to be surely packaged for safe transport. This includes the usage of clean ESD-SAFE packing trays, slotted foam packing materials, and ESD protective bags. Everyday our packing team demonstrates the know-how to safely transport devices.</p>
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Engineering Change Notices (ECN)

<p>Notice, Documentation, and Approval</p>	<p>Customers can expect:</p> <ul style="list-style-type: none"> • Notification of significant changes affecting standard and custom products. Standard products are those offered on our website. • Customers purchasing custom products have ‘Right of Approval’ of any significant changes. • Significant changes include hardware, software, and/or optical deviations affecting form/fit/function.
<p>Minor Spec Changes</p>	<p>Newhaven Display reserves the right to update the specifications with new information. This information may not warrant an ECN if form/fit/function are not impacted.</p>
<p>EOL Notification</p>	<p>We take every initiative possible to avoid End Of Life (EOL) notifications but they may still occur. We have a list of counter measures when they do occur. EOL notifications trigger last-time buys of critical components. We take every possible measure to ensure our supply for as long as possible. This includes sourcing raw material from alternate approved suppliers. EOL notifications initiate searches for drop-in replacements. We make every possible effort to minimize customer facing issues.</p>