

UL 970, Standard for Retail Fixtures and Merchandise Displays

FLEXIBLE CONSTRUCTION PROGRAM



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Flexible Construction Program allows manufacturers (MFRs) of commercial displays to streamline the certification process for revised mechanical changes to their UL Certified products through UL authorization to conduct limited testing themselves to UL 970, Standard for Retail Fixtures and Merchandise Displays.

With assistance from UL, the MFR would identify and confirm with UL the applicable tests, then perform the tests at their facilities. The test results are then submitted to UL for review, and if found in compliance with the applicable requirements, the revised construction will be added to the Follow-Up Services Procedure as a UL Certified product.

Please note, if electrical components need to be changed, the required testing is conducted by UL.

The following "Par." references are to the applicable requirements in UL 970 Retail Fixtures and Merchandise Displays.

What mechanical tests are conducted on site by MFR:

Par. 29 Conditioning of Products Par. 31 Loading Tests Par. 32 Stability Tests

Par. 33 Structured Mounted or Secured Display Tests Par. 34 Tests on Glass Sheets

What's required to be in the Flexible Construction Program?

- 1. Test equipment needs to be calibrated. For example, the test weights are calibrated or the test weights are confirmed using a calibrated scale during testing.
- 2. MFR staff and facility will be audited by UL to ensure testing can be conducted per the standard.
- 3. The MFR has access to UL standards and UL Datasheets
- 4. MFR has training records and programs for any new staff conducting testing.
- 5. MFR can maintain records of testing results for five years including tests not in compliance. This includes photos of the sample during the test.





How does the program work?

- An initial project will be opened to Certify the initial design and confirm MFR test capability. UL team member will visit MFR to provide training (if needed) and witness MFR performing testing.
- 2. When new models are ready to be Certified, the MFR will request a project to be opened to add the alternate construction and the new models to the Certification file.
- 3. The MFR will determine and perform the appropriate tests per the standard, and the UL team is always available to assist with testing questions.
- 4. After testing is completed with compliant results, data is reviewed by UL, and UL provides product certification, the new model may bear the UL Certification Mark and be shipped.
- 5. If it is determined by UL that the results are not in compliance, the MFR may need to modify products and retest before products can ship with UL Certification mark.
- 6. During the UL Follow Up Service Audits, the UL Field Engineer will review testing records and may witness testing if needed.

Equipment Required:

General: All equipment needs to be calibrated by a company that has accreditation to ISO 17025. Some of the equipment may be purchased from UL. See equipment marked with an "*" below.

Miscellaneous: Stopwatch, measuring tape(s)

Par. 29 Conditioning of Products:

• A full-draft circulating-air oven range that goes up to 100° Celsius, or a number of samples can be tested onsite at UL for a fee.

Par. 31 Loading Tests

- Sufficient weights*
 - For example, if you have a display with five shelves that can each hold 100 pounds, you'll need 500 pounds of weight for the normal test. (Weights do not have to be calibrated if a calibrated scale is used to confirm the actual weight of each weight used)
- If a monitor will be used, you will need a test frame(s) *.
- 25- and 50-pound straddling weight* See UL 962, Fig. 38.4.

Par. 32 Stability

- Weights as described above
- Level that measures 2 and 10° angles
- Force Gauge that measures up to 40 pounds
- 50-pound lead- or steel-shot-filled canvas bag with a diameter of 8.0 ±0.5 inches*

Par. 33 Structured Mounted or Secured Display Tests

- Weights as described above
- Simulated wall surfaces, such as drywall, wood or metal studs, cement, or cement blocks

Par. 34 Tests on Glass Sheets

- 2 inch diameter and solid steel sphere weighing 1.18 pounds*
- 20 pound sand-filled bag having a 30.0 ±0.5 inch circumference*





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