

# FUStart: Preparing for UL Solutions Follow-Up Services inspections

**UL Solutions 2023** 

Safety. Science. Transformation.™

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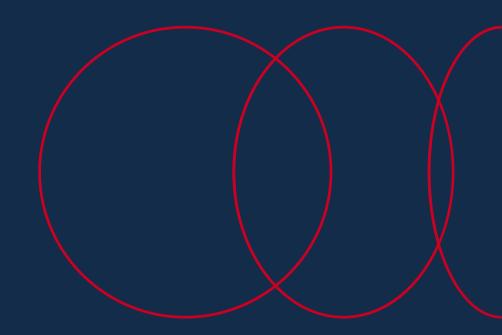
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# Section 1: About FUStart





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### **About FUStart**

FUStart is a resource designed to help manufacturers understand and prepare for the UL Solutions Follow-Up Services program.

#### **FUStart will:**

- Introduce you to the UL Solutions Follow-Up Services program
- Help prepare you for your first UL Solutions Follow-Up Services inspection
- Help you understand your role and responsibilities regarding UL Solutions Follow-Up Services

### **About FUStart**

FUStart provides customers with an introduction to the requirements to produce UL Certified products. You can obtain additional information from your UL Solutions field engineer.

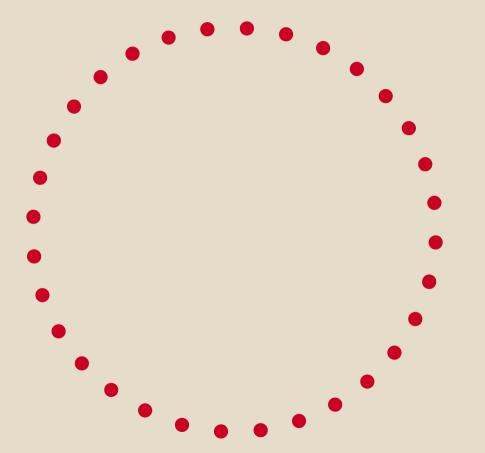
#### FUStart can help you:

- Plan for your production and documentation needs
- Understand traceability, marking, testing and other requirements so you can incorporate them into your factory's manufacturing process controls and quality management system
- Know and address these requirements to help reduce inspection time and instill confidence in your factory's ability to produce compliant products
- Avoid unnecessary delays in your use of UL Marks
- Understand the role of UL Solutions Follow-Up Services in the certification process
- Understand what takes place during a UL Solutions Follow-Up Services inspection





# Section 2: About UL Solutions





### The UL Solutions certification process



#### **Product submittal**

Applicant (product owner) sends the product to UL Solutions for initial assessment



#### **Product investigation**

UL Solutions engineers thoroughly test and evaluate the product to determine its compliance with requirements



FUStart review: Self-study, remote presentation or on-site presentation



#### Authorization to use the UL Mark

Once the project and any required initial product inspections (IPIs) are complete, the manufacturer is authorized to apply the UL Mark to compliant products, in most cases. You can find more information here.



#### **UL Solutions Follow-Up Services inspections**

Throughout the lifetime of the UL certification, products undergo regular inspections at the manufacturing facility to verify continued compliance with requirements.



### **Authorization to apply the UL Mark**

- Authorization to apply the UL Mark to a product is provided by:
  - Issuance of the UL Solutions Follow-Up Services procedure
  - Issuance of an NoC and the successful completion of the required IPI
  - Issuance of an NoA for authorized manufacturing locations when an IPI is not required.
- An IPI (Initial Production Inspection) is a check on the means that the manufacturer has in place to produce a product in accordance with applicable requirements as defined in the UL Solutions Follow-Up Services Terms.

- A Notice of Completion (NoC) shows that the product investigation is completed and that an IPI is required prior to authorizing the use of the UL Mark. The manufacturer shall not ship products incorporating Marks until the IPI has been successfully completed.
- A Notice of Authorization (NoA) is a notification related to the UL Solutions Follow-Up Services procedure that provides authorization to apply the UL Mark for authorized manufacturing locations when an IPI is not required.



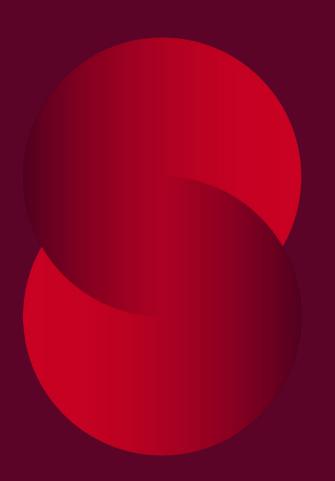
### **Initial Production Inspection (IPI)**

- Takes place at time of UL Certified products' first production run
- Conducted whenever a new factory is added to the UL Solutions Follow-Up Services procedure and when determined necessary to assess the production of the UL Certified product before Marked products can be shipped
- Confirms that a manufacturer is producing the UL Certified product in accordance with UL Solutions Follow-Up Services procedure requirements
- Very similar to other inspections, except that it's scheduled with the manufacturer

- If the production complies with the requirements described in the UL Solutions Follow-Up Services procedure, a UL Solutions field engineer will release labels for use on current and subsequent production. In this situation, ongoing production as described in the Follow-Up Services procedure is authorized to apply the UL Mark.
- Products cannot be shipped with the UL Mark until the IPI has been completed and UL Solutions has found that representative products comply with the UL Solutions Follow-Up Services procedure and associated documents.
- If an IPI is required and there is no production, your UL Solutions field engineer may provide options for completing the IPI.



# Section 3: UL Solutions Follow-Up Services details





# **UL Solutions Follow-Up Services** overview

- This required program confirms that the manufacturer continues to produce UL Certified products in compliance with UL Solutions requirements.
- Follow-Up Services are delivered through inspections at locations where UL Certified products are manufactured, assembled, fabricated, processed, finished, stored or labeled.
- Inspections are conducted by UL Solutions field engineers at a frequency appropriate for the UL Certified product or system.
  - ONormally, inspections are unannounced.
  - Ouring each factory visit, a UL Solutions field engineer looks for products with a UL Mark.\*
- Occasionally, UL Solutions may select samples from the factory, the open market or elsewhere for further determination of compliance.



\*There may be occasions when a UL Solutions field engineer will be on site even though no UL Marks are being used. In these cases, a UL Solutions field engineer may conduct a production-ready visit.



# Requirements, terms and agreements

# Mark Integrity Program – UL Mark surveillance requirements

UL Solutions defines responsibilities, duties and requirements for both manufacturers and UL Solutions field engineers involved in inspection programs associated with US, Canada and UL Mark Certification Schemes.

#### Global Services Agreement (GSA) and UL Solutions Follow-Up Services terms

Sets the service terms and conditions for the specific services requested and provided to UL customers, which include, but are not limited to:

- Controlling the use of the UL Certification Mark
- UL Solutions Follow-Up Services inspections
- Unannounced inspections
- Confidentiality

You can view more information about UL Mark surveillance requirements <u>here</u>. Review the UL Solutions Follow-Up Services terms agreement <u>here</u>.

You can review the GSA here.

You can review the full UL Mark surveillance requirements in your UL Solutions Follow-Up Services procedure.



### Types of UL certification labels

### Type L

Type L labels are primarily intended for life safety products or products for which the manufacturing process is customizable.

- Visits are unannounced inspections, and their timing may be based on factors such as the number of UL Marks used by the manufacturer.
- Typically, manufacturers purchase UL Marks on labels from UL Solutions or a UL Solutions authorized label supplier.

View more information about authorized label suppliers here.

### Type R

- Type R labels are primarily intended for electrical appliances, components and other products.
- Visits are typically unannounced and usually occur at least four times per year.
- Manufacturers may produce their own UL Marks using artwork approved by UL Solutions, or they may have the UL Marks printed by an <u>authorized label supplier</u>.
- UL Certification Marks can be applied using several methods, such as affixing an adhesive label, molding, stamping, etching or silk-screening, as specified in the Follow-Up Services procedure.



# Frequency of follow-up inspections

Inspection frequency varies depending on the product, production volume (for some products) and the manufacturer's ability to manufacture products in accordance with requirements.





### Responsibilities of UL Solutions

A UL Solutions field engineer is responsible for performing each element of the inspection to verify the manufacturer's compliance with UL Solutions requirements. At the end of the inspection, a UL Solutions field engineer will issue an inspection report to document the inspection and identify the models inspected. If necessary, a Variation Notice (VN) will be issued to document and communicate any nonconformances identified during the inspection.





# Additional responsibilities of UL Solutions

- Review product compliance using the UL Solutions Follow-Up Services procedure during inspections
- Document the type of product reviewed during an inspection
- Verify manufacturer's control of UL Certification Marks
- Verify manufacturer's compliance with factory test programs
- Document nonconformances with certification requirements
- Review effectiveness of corrective actions when needed to address nonconformances
- Select follow-up testing samples and provide mailing instructions to the manufacturer when indicated by the UL Solutions Follow-Up Services procedure







# **Construction** requirements

- If a product bears a UL Mark, the manufacturer must be able to provide verification that the product is constructed to meet the UL Solutions Follow-Up Services procedure requirements.
- Components may be verified through the UL Solutions Component Recognition program or through other means such as split inspections and other options covered here.
- Required product markings and instructions described in the UL Solutions Follow-Up Services procedure must be verifiable by the UL Solutions field engineer.

# Component and material traceability documentation

During visits, UL Solutions will verify that a manufacturer maintains traceability and the ability to determine whether the components are UL Certified.

- This includes and is not limited to: UL Listed and Recognized Components, fabricated polymetric parts, wire and cable, wiring harnesses, printed wiring (circuit) boards and assemblies, repackaged products, and split-inspected components.
- View the UL Solutions traceability requirements here.



### Required production line testing

Production line testing is required for many products to determine compliance with applicable safety requirements. In these situations, manufacturers are required to perform tests and maintain test records and the disposition for nonconforming products.

Additionally, some products require follow-up testing at a testing laboratory or under witness by UL Solutions.

- The UL Solutions Follow-Up Services procedure describes sample requirements, test methods and acceptable criteria.
- UL Solutions randomly selects production or stock produced since the last product inspection to be shipped by the manufacturer to the test laboratory.





### **Test records**

UL Solutions requires manufacturers to maintain procedures and records as specified in the UL Solutions Follow-Up Services procedure. These procedures and records may include:



Calibration of testing and measuring equipment



Methods of testing



Records of testing and results



Disposition or corrective action for testing failures





# Calibration of inspection, measuring and test equipment

All manufacturer inspection, measuring and test equipment required as part of the UL Solutions Follow-Up Services procedure or used by UL Solutions during inspections at a factory must be calibrated at least annually to a traceable national standard. (View the UL Solutions calibration requirements.)

Instruments used as part of processing equipment, such as equipment used in the manufacturing of the product, generally are not affected by this requirement unless specifically identified in the UL Solutions Follow-Up Services procedure.

### Making changes to UL Certified products

If you need to make construction changes to your UL Certified product, please <u>contact us</u> to implement the changes to your UL Solutions Follow-Up Services procedure.

### **Key steps**

1

Submit changes to UL Solutions for evaluation and review **prior** to implementing those changes on products bearing UL Marks, per the GSA (Global Services Agreement) requirements and Follow-Up Service Terms.

2

UL Solutions will evaluate the changes and, if compliant with applicable requirements, issue authorization for the changes and revise the UL Solutions Follow-Up Services procedure.

3

Revised pages of the UL Solutions Follow-Up Services procedure are sent to the manufacturer and are available on <a href="myUL">myUL</a>. The revised pages become part of the UL Solutions Follow-Up Services procedure used to maintain UL Mark integrity.



# **Confirming Compliance for Products** in the Field – Field Inspection

UL Certification Marks are to be placed on products only during the manufacturing process at authorized manufacturing locations. However, we recognize that there are some instances when UL Marks were not provided in error or were damaged/removed in the field. In this case, we offer Field Inspection.





Field Inspections are reserved for recently installed products and must have been eligible for certification at the time the product shipped from the manufacturing location. The UL Mark is applied by the manufacturer's representative under UL Solutions supervision after a sucessful Field Inspection.

This can help you avoid costly removal and replacement of products, saving both time and money.

For more information, visit our <u>field inspection</u> pages.



# **Confirming Compliance for Products** in the Field – Field Evaluation

Products elibigle for Field Evaluation are typically not certified, have been modified since certification or were not eligible for Field Inspection.

Through Field Evaluations, we can evaluate and report using the applicable safety compliance requirements of installed products for acceptance by local regulatory authorities.



For more information, visit our <u>field evaluation</u> pages.





# Appeals process

While UL Solutions maintains sole discretion of its certification decision and authorization to apply the UL Mark, if a manufacturer disagrees with UL Solutions on UL Solutions Follow-Up Services matters and a satisfactory resolution cannot be reached, the manufacturer can, without prejudice, present appeals or requests for clarification to UL Solutions for resolution.

Please <u>contact us</u> if you need to appeal or request clarification to a UL Solutions Follow-Up Services decision.





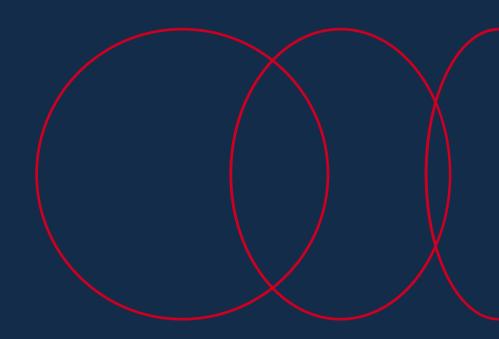
## A manufacturer producing UL Certified products must



- Verify that only products fully meeting all UL Solutions requirements carry UL Marks.
- Maintain traceability of components and materials required by the UL Solutions Follow-Up Services procedure.
- Make no references to UL certification for products that are not authorized or do not fully comply with UL certification requirements, including all advertising materials (<u>see guidelines</u>), digital references (such as websites and emails) and all promotional products.
- Grant the UL Solutions field engineer immediate access to the manufacturing facility.
- Implement corrective action on nonconformances.
- Access current inspection documents on <u>myUL</u> or maintain a hard copy.
- Apply UL Certification Marks only at locations authorized by UL Solutions.
- Reproduce UL Marks for UL Certified products if authorized and/or acquire UL Marks from UL Solutions or authorized label suppliers. (See your UL Solutions Follow-Up Services procedure for more information.)



# Section 4: Follow-up Services customer tools





# myUL® client portal

### With myUL, you can:



View inspection reports and VNs



Order UL Solutions labels



Download your latest UL Solutions files and reports



See when UL Solutions receives your product samples and when they are returned, picked up, destroyed or archived



Access and download UL Standards



Gain full visibility into quotes, orders and projects



# myUL® client portal

myUL® is a secure online source for increased visibility into your UL Solutions project files, product information, documents, samples and services. myUL provides secure access to online tools and databases that can help simplify your compliance activities. Your account offers you access to UL Solutions reports, progress on projects, VNs, inspection reports, the UL Solutions staff directory and technical data for components such as plastics, appliance wiring material and printed circuit boards. Streamline registration with your company's party site number (PSN), which your UL Solutions field engineer provides.





## **UL Solutions Follow-Up Services procedure overview**

- The UL Solutions Follow-Up Services procedure describes the authorized construction of a product.
  - Products that meet the requirements outlined in the UL Solutions Follow-Up Services procedure are eligible to carry the UL Mark specified in the procedure.
  - The procedure contains requirements the manufacturer must follow and the requirements that UL Solutions will use to assess ongoing compliance with our requirements.
- The Follow-Up Services procedure is sent to the manufacturer before the first inspection or IPI.

- The applicant and manufacturer must understand the purpose, requirements and accuracy of the UL Solutions Follow-Up Services procedure.
- The manufacturer must inform the UL Solutions Customer Care or the project handler of any errors they notice in the procedure.
- If you have any questions, contact the project handler issuing the UL Solutions Follow-Up Services procedure, or contact us via our website.
- To access a current version of your UL Solutions Follow-Up Services procedure and other documents, <u>register for a complimentary myUL</u> <u>account.</u>



# **UL Solutions Follow-Up Services** procedure key elements

- Authorization page Identifies the manufacturing facilities authorized by UL Solutions to apply UL Marks to products complying with UL Solutions requirements and any required factory ID marking assigned when there is more than one manufacturing location
- Listing Mark data page and/or Marks Hub –
   Identifies required UL certified Mark elements
- Appendix Contains instructions for the manufacturer and UL Solutions, outlining responsibilities and tests for UL Certified products; also describes tests required on UL Solutions Follow-Up Services samples forwarded to UL Solutions facilities

- Follow-Up Inspection Instructions (FUII) /
  Standardized Appendix Pages (SAP) Contains
  specific instructions and responsibilities applicable to
  the UL Solutions Follow-Up Services program; these
  instructions are the same for all manufacturers within
  a particular product category
- Section General Contains instructions, construction details and marking information related to multiple products
- Descriptive sections Typically sequenced numerically, describing the product(s) evaluated for certification by UL Solutions



<sup>\*</sup>Your UL Solutions Follow-up Services procedure may be accessed through myUL.



### **Inspection reports**

UL Solutions field engineers use inspection reports to document the results of factory inspections.

#### An inspection report identifies:

- Basic information about the visit; the name of the UL Solutions field engineer; the manufacturer's name, location and factory representative; etc.
- The type of visit (regular inspection, IPI or special inspection)
- All models examined during the visit
- Information about product samples that need to be sent to a UL Solutions testing laboratory for additional follow-up testing

Applicants and/or manufacturers receive a copy of the inspection report, which is also accessible through <a href="myUL">myUL</a>.



### **Variation Notices**

A UL Solutions field engineer issues a VN to report nonconformances with the requirements, which typically include the following aspects of the production process:

- Test equipment calibration
- Testing
- Document control
- Components and materials
- Product construction
- Markings and manuals
- Traceability

A VN is also issued to record situations in which a misuse of the UL Mark is involved. VNs can be accessed on <a href="myUL">myUL</a> and are issued to the applicant and/or manufacturer.





# Resolving a VN

When a VN is issued, the manufacturer has three options for handling nonconforming UL Marked products:

- Bring products into compliance with the UL Solutions Follow-Up Services procedure
- Remove or obliterate any markings referring to UL Solutions on the nonconforming product
- Scrap the products that are not in compliance with UL Solutions requirements





### Additional information on resources

# Maintaining compliance and corrective action when a VN is issued:

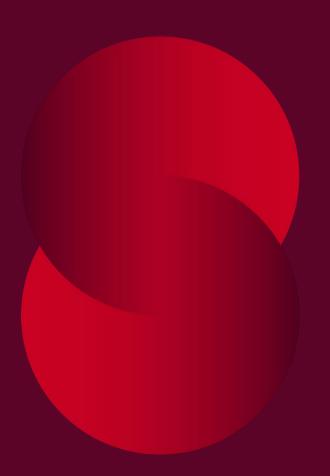
It is the manufacturer's responsibility to maintain compliance with UL Solutions requirements. In order to prevent future nonconformance, the manufacturer must perform a root cause analysis and create a corrective action plan. The UL Solutions field engineer will follow up on all VN items to verify that the disposition was carried out and that the variation was resolved. See the Variation Notices and Corrective Action document on the **UL Solutions Follow-Up Services** page for more information.

### Sample tag

If samples are sent to a testing laboratory for follow-up testing, a UL Solutions field engineer completes a sample tag for each set of samples and secures it to the samples. A manufacturer is responsible for confirming that the selected samples are sent to the correct testing laboratory in a timely manner. The UL Solutions field engineer will provide mailing instructions. The results of this testing are also used to confirm that the manufacturing process of the certified products remains in control and is consistent with the process that was in place at the time of original certification of the products.



# Section 5: UL Certification Marks





# Types of UL Certification Marks

#### **Types of Certifications**

- Listing UL Solutions has determined that a product complies with UL Solutions requirements and that the product has been manufactured under our Listing and UL Solutions Follow-Up Services programs.
- Classification UL Solutions has determined a manufacturer has demonstrated the ability to produce a product that complies with UL Solutions requirements and identifies the applicable requirements and/or limitations in the certification marking.
- Component Recognition Used for parts or subassemblies intended for use in products Listed or Classified by UL Solutions.

#### **Types of Certification Marks**

- Enhanced The preferred UL Certification Mark for Listed and Classified products. A single Enhanced Mark may include certifications for multiple markets in a single Mark.
- Alternate UL Mark (where authorized) An optional UL
   Certification Mark for Listed and Classified products that may
   be used when authorized by the UL Solutions Follow-Up
   Services procedure.
- Component Recognition See your UL Solutions Follow-Up Services procedure for information on displaying Component Recognition Marks.



# Composition and design of UL Marks for compliance

The UL Marks appearing on products are composed of several key elements:

- Appropriate UL Certification Mark, e.g., CERTIFIED, LISTED or CLASSIFIED.
- Appropriate Recognized Component Marking.
- Any other information required by a specific certification program, which may include a product identity, standard used for certification or additional certification markings
- File number, identifier, control number, serial number, lot number or issue number (depends on the type of certification mark)
- In addition, the manufacturer may include the certification mark with other information such as company name, electrical ratings, warning markings, data codes, place of manufacture, etc, as long as it does not contradict the certification information provided by UL Solutions.













# Composition and design of UL Marks

#### **Critical notes**

- Use <u>downloadable UL Mark artwork</u> rather than composing your own version of the UL Mark.
- The Enhanced UL Certification Mark may be available for your product. For more information on the enhanced Mark, visit the UL Solutions Marks and Labels page. The Enhanced UL Certification Mark includes information to assist you in verifying that the product is certified and describes the scope of the certification.
- UL Solutions may require additional information about a product that can be displayed on the same label containing the elements of the UL Mark.

See <u>marking requirements</u> for more information.

# **Sourcing UL Marks**

#### **Ordering UL Solutions labels**

Learn more about ordering Type L labels <u>here</u>. Learn more about ordering Type R labels <u>here</u>.

#### Items to be considered when sourcing UL Marks

- Elements, composition, location and methods of application
- Is the label material rated appropriately for the conditions it will be exposed to (temperature, type of surface, environment, etc.)?
- Limit UL Solutions label orders (paper or hologram) to your immediate needs since the shelf life is limited to three years. After three years, UL Solutions labels must be replaced with new stock.

If you have questions about what UL Mark should appear on your product or on UL Recognized Components, contact the <u>UL Solutions</u> <u>Customer Experience Center</u>. For more information about the meaning of UL Marks, please visit our <u>Marks and labels page</u>.







### Misuse of the UL Mark

Using the UL Mark is available only to those complying with UL Solutions certification requirements. If a manufacturer does not comply with UL Solutions requirements, UL Solutions may withhold the use of the UL Mark or increase frequency of inspections at the manufacturing facility.

- Normal inspection schedules may be reinstated once appropriate control of the use of UL Marks has been demonstrated.
- Any additional inspection and administrative costs associated with the monitoring and implementation of additional controls are the applicant's responsibility unless arrangements have been made to invoice the manufacturer
- Future occurrences of unauthorized use of UL Marks may result in more severe actions up to withdrawal of certification.
- If you are aware of any misuse of the UL Mark, please <u>let us know</u>.

Thank you for trusting UL Solutions for your product certification needs. If you have any questions or need additional services, please reach out to your UL Solutions field engineer or **contact us**.

