

Subjects 444, 1677 and 1863  
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September 9, 2014

TO: Subscribers to UL's Certification Services for:

Communications Cables (DUZX), Communications Cable Assemblies (DUNH), and  
Communication Circuit Accessories (DUXR)

SUBJECT: Test and Follow-Up Service Requirements for the Performance Certification (Verification) of  
Communication Cable Assemblies (DUNH) – Patch Cord and Jumper Products under UL Product  
Category “**Communications Cable Assemblies Verified in Accordance with National or  
International Specifications (DVBH)**”

Based on industry demand and changes to national and international product Standards, UL has decided to reintroduce the Patch Cord and Jumper Product Performance Certification program. Other connecting hardware such as jacks, plugs, terminal blocks, patch panels, etc. are not currently covered under this service offering.

The attached Performance Certification Program does not differ technically from the program previously offered and now also includes the Category 6A performance category designation.

### **Program Scope**

The Performance Certification Service offers two options:

1. Certification Service – Under this option, there is both initial qualification testing and ongoing compliance testing. Products in compliance with the applicable performance standard are authorized to bear the UL Verification Mark, as described in this bulletin and appear in UL’s published records as Verified products.
2. Letter report Service - Under this option, there is one-time Verification testing, with no ongoing compliance testing.

### **IMPACT**

Participation in this Program is an optional service. Subscribers are required to have their products evaluated before being authorized to apply the UL Performance Certification Mark.

Both Listed and non-UL Listed products may be submitted for evaluation under this Program and the attached Appendix will describe how these products will be differentiated in UL Procedure documentation.

### **ANNOUNCED EFFECTIVE DATE**

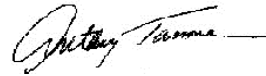
This revised Performance Certification Program is in effect as of the date of this bulletin.

Manufacturers interested in participating in the attached Performance Certification Program may contact Mr. Robert Bellasai, using the contact information below.



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## **APPENDIX A**

### **TEST PROGRAM FOR QUALIFYING COMMUNICATIONS CABLE ASSEMBLIES (PATCH CORDS & JUMPERS) FOR DATA-TRANSMISSION PERFORMANCE-CATEGORY MARKINGS**

#### **INTRODUCTION**

The UL Communications Cable assemblies (Patch Cords & Jumpers) performance program applies to patch cord and or jumpers utilized in residential or commercial telecommunications cabling systems or Local Area Networks. The intent is to provide for the certification of these products to categories of performance that are useful to system-design consultants, cable distributors, system users, cable manufacturers, and equipment manufacturers.

The program covers determination of the performance category of cable assemblies (Patch Cords & Jumpers) in data-transmission systems. The final acceptability of particular cable assemblies (Patch Cords & Jumpers) for a specific data system needs to be determined by the system designer taking into account variables such as installation practices, cable length, connected equipment, and the operating environment. The performance category is marked on the cable assemblies (Patch Cords & Jumpers) packaging.

The number of categories and the criteria for each category is based on established and developing industry standards and is subject to revision as needs change.

#### **CABLE ASSEMBLY (Patch Cords & Jumpers) CONSTRUCTION**

Listed cable assemblies (Patch Cords & Jumpers) are eligible if they consist of the following:

- a) A Listed Communications Cable terminated with RJ45 Plug connectivity on each end.

#### **TESTS AND PERFORMANCE CATEGORIES**

At UL, Category 5E (unshielded and shielded), 6 (unshielded and shielded) and 6A (shielded only) Patch Cord & Jumper products are to be subjected to each of the tests (i.e. Return Loss and Near End Crosstalk) indicated in the standard for the performance category. Patch Cord & Jumper products shall be tested bi-directionally at room temperature  $20^{\circ}\text{C}\pm 3^{\circ}\text{C}$  &  $50\pm 5\%$  Relative Humidity. Patch Cords & Jumpers may be tested coiled. The referee method is for the cords to be straightened during the test.

The UL Performance Certification Program is only investigating Radio Frequency (RF) performance requirements established in applicable national or international standards. Other tests may be specified in these standards but are beyond the scope of this program.

#### **QUALIFICATION FOR MARKING**

To obtain Certification for Communications Cable Assemblies (Patch Cords & Jumpers) performance categories, a manufacturer shall submit samples of Communications Cable assemblies (Patch Cords & Jumpers) for testing. The Communications Cable Assemblies (Patch Cords & Jumpers) will be tested and the data used to determine the appropriate Performance Category Designation.

For initial qualification five (5) short, medium and or long patch cord/jumper lengths of each construction type may be required for testing depending on the constructions submitted.

## **TEST METHODS AND EQUIPMENT**

The tests will be conducted in accordance with the American Society for Testing and Materials Standard Test Methods (ASTM) and ANSI/TIA-568-C.2 entitled Balanced Twisted-Pair Telecommunications Cabling and Components Standards Dated August 11, 2009.

The test equipment to be used for testing will be a laboratory grade network analyzer with baluns and test heads in compliance with ANSI/TIA-568-C.2.

## **FOLLOW-UP SERVICE PROGRAM**

The Follow-Up Program for this Certification Service will be documented in the Follow-Up Services Procedure. The program consists of Follow-Up examinations by the UL Representative at the factory and Follow-Up testing at UL on samples selected by the UL Representative.

### **UL Representative's Examination and Testing**

The UL Representative will visit the manufacturer on a quarterly basis. During each inspection, the UL Representative shall examine all production bearing or intended to bear the Certification Marking. This will include a construction review of the product to determine compliance with the UL Follow-Up Service Procedure description.

### **Follow-Up at UL**

Twice each year, the UL Representative shall select three (3) of the shortest and three (3) of the longest patch cord/jumper samples of a performance category and mail them to the UL test office for Follow-Up testing. The selected samples shall be subjected to all of the tests (i.e. Return Loss and Near End Crosstalk) required for the performance category.

### **Testing by the Manufacturer**

Patch Cord & Jumper Products will not require on-going factory performance testing by the manufacturer.

## **Publication of Certification**

Certified Patch Cords and Jumper Products, under option 1, will be identified in UL's Online Directory, under the category of "Communications Cable Assemblies Verified in Accordance with National or International Specifications" (DVBH).

## **Certification Mark**

The Type R Certification Mark of UL on the product or on the attached tag or the smallest unit container in which the product is packaged is the only method provided by UL to identify products manufactured under its Certification and Follow-Up Service programs.

### Appendix A – Page 3

For communications cable assemblies that are also Listed under the product category “Communications Cable Accessories ([DUXR](#))”, the marking includes the appropriate Certification Mark for Safety and the Certification Mark for Performance.

The Performance Category (e.g. Category 5E, 6 or 6A) Marking is not required to appear in the Certification Marking (Label) text. Subscribers will be required to reference the Performance Category in the Engineering Markings supplied with each product packaging. In addition, the Performance Category marking will be required to appear on the product packaging.



The new Certification Mark will only be available for downloading to legitimate UL customers via a password protected Marks and Badge Hub. The Marks and Badge Hub will allow customers to build their Mark on-line and download their unique camera ready artwork. Please visit <https://markshub.ul.com/> to register.