DESCRIPTION

PRODUCT COVERED:

USR, CNR - Component Direct Plug-In Battery Charger Model GS-270

GENERAL CHARACTER:

The device covered by this Report is a direct plug-in transformer unit intended to recharge NiCad batteries employed in a personal hygiene and health care appliances, UL 1431.

The unit covered by this Report consists of a transformer and other related electronic circuitry housed in a thermoplastic enclosure. The unit is provided with parallel type blades for insertion in a standard parallel blade receptacle. The output cord is provided with a nonstandard polarized connector.

ELECTRICAL RATINGS:

	Input, 60 Hz		Output dc	
Model	V	W	V	mA
GS-270	120	5	1.45	120

DIFFERENCES BETWEEN MODELS:

Model GS-270 is the basic model described in this report.

ENGINEERING CONSIDERATIONS (NOT FOR UL REPRESENTATIVE USE):

USR - Indicates evaluation per UL 1310, Fifth Edition

CNR - Indicates evaluation per CAN/CSA C22.2 No. 223

Use - For use in products where the acceptability of combination is determined by Underwriters Laboratories Inc.

Conditions of Acceptability - When installed in the general use equipment, the following are among the considerations to be made:

1. Leakage current measurements should be performed on the combination battery charger and end-use product.

CONSTRUCTION DETAILS:

General - Refer to Section General.

Spacings - Min spacings between live parts of opposite polarity, between live and dead-metal parts shall be as indicated below:

	Min Spacings, in (mm)	
V rms	Through Air and Over Surface	Shortest Distance To Metal Enclosure
150 or less	1/16 (1.6)	1/4 (6.4)
151-250	3/16 (1.8)	1/4 (6.4)

Class 2 Secondary Circuit Spacings - Not specified, spacings are based on Dielectric Withstand Tests.

Enclosure Assembly - Case and cover constructed from Recognized Component plastic material (QMFZ2), manufactured by G.E. Plastics, Type Se-100 (F1), flammability rated min 94V-1. Case and cover secured together by high frequency sonic welding.

Marking - Permanently ink-stamped, hot-stamped, silk-screened or provided as label, label employed is covered as a Recognized Component marking and labeling system suitable for application to polyphenylene oxide and having a min operating temperature of 80°C.

Information Marking - Indicates company name, model number, Class 2 materials as noted below, date or other dating period of manufacture, optional cautionary statements, and optional electrical ratings including: Input voltage frequency, and watts; Output voltage and current dc. Class 2 marking: "Class 2 Battery Charger".

Cautionary Markings - The "CAUTION" or "WARNING" in letters 1/8 in high and remaining letters of statement in letters not less than 1/16 in high.

"CAUTION" and "RISK OF ELECTRIC SHOCK" and the following or the equivalent: "DRY LOCATION USE ONLY" or "DO NOT EXPOSE TO LIQUID, VAPOR OR RAIN."

Battery Charger shall be marked "Backfeed Protection", "BFP", or the equivalent.

TEST RECORD NO.NEW

SAMPLES:

A sample of the GS-270 as indicated below and constructed as described herein, was submitted by the manufacturer for examination and test.

Battery Charger Model GS-270 was additionally investigated for UL1310 Industrial File Review to Fifth Edition, dated May 3, 2005.

GENERAL:

The following Test Record is derived from records of tests for substantially similar products dated E132594, under this File, which Test Record has been deemed appropriate for use in this Report.

Rationale for waived tests - Engineering judgment that the changes do not negatively impact the performance of the product for the specific test waived.

Test results relate only to the items tested. The following tests were conducted.

Test	Paragraph / Clause
BACKFEED PROTECTION TEST (COMPONENT FAULT):	39.8

Test Record Summary:

The results of this investigation, including construction review and testing, indicate that the products evaluated comply with the applicable requirements in UL1310 Fifth Edition and, therefore, such products are judged eligible to bear UL's Mark as described on the Conclusion Page of this Report.

Test Record by: Reviewed by:

Christopher Holmgren	Brian Spera
Engineer	Engineer