

1.0 Reference and Address			
Report Number	106084609CHI-001	Original Issued: 9-Apr-2025	Revised: None
Standard(s)	Enclosures for Electrical Equipment, Non-Environmental Considerations [UL 50:2024 Ed.14] Enclosures for Electrical Equipment, Environmental Considerations [UL 50E:2020 Ed.3+R:30Apr2024]		
Applicant	Westell Inc.	Manufacturer 1	Westell Inc.
Address	750 N. Commons Dr. Aurora, IL, 60504	Address	750 N. Commons Dr. Aurora, IL, 60504
Country	USA	Country	USA
Contact	Joe Gage Dave Leszewski	Contact	Joe Gage Dave Leszewski
Phone	630-375-4724 630-375-4173	Phone	630-375-4724 630-375-4173
FAX	NA	FAX	NA
Email	jgage@westell.com dlaszewski@westell.com	Email	jgage@westell.com dlaszewski@westell.com
Manufacturer 2	RF MORECOM COREA		
Address	3rd floor 292 Saneop-ro 155beon-gil Gwonseon-gu, Suwon-si Gyeonggi-do 16648		
Country	KOREA		
Contact	Jini Kim Walid Regaya		
Phone	+82 31 70 7609 8783 514-917-6427		
FAX	NA		
Email	jinikim@rfmkrea.com walid@rfmkorea.com		

2.0 Product Description	
Product	Public Safety Bi-directional Amplifier Enclosure
Brand name	NA
Description	The products covered by this report are enclosures for a Public Safety Bi-directional Amplifier system intended for indoor use in UL 2524 applications.
Models	CS45-734-834-A0, CS19-BBU-005
Model Similarity	Model CS45-734-834-A0 is the Bi-directional Amplifier (BDA) Model CS19-BBU-005 is the battery/power supply cabinet.
Ratings	CS45-734-834-A0: Type 4 CS19-BBU-005 Battery Enclosure Assembly: Type 3R CS19-BBU-005 Charger Box Assembly: Type 4
Other Ratings	NA

3.0 Product Photographs

Photo 1 - EXTERNAL FRONT VIEW OF CS45-734-834-A0



Photo 2 - INTERNAL VIEW OF CS45-734-834-A0



3.0 Product Photographs

Photo 3 - INTERNAL VIEW OF CS45-734-834-A0

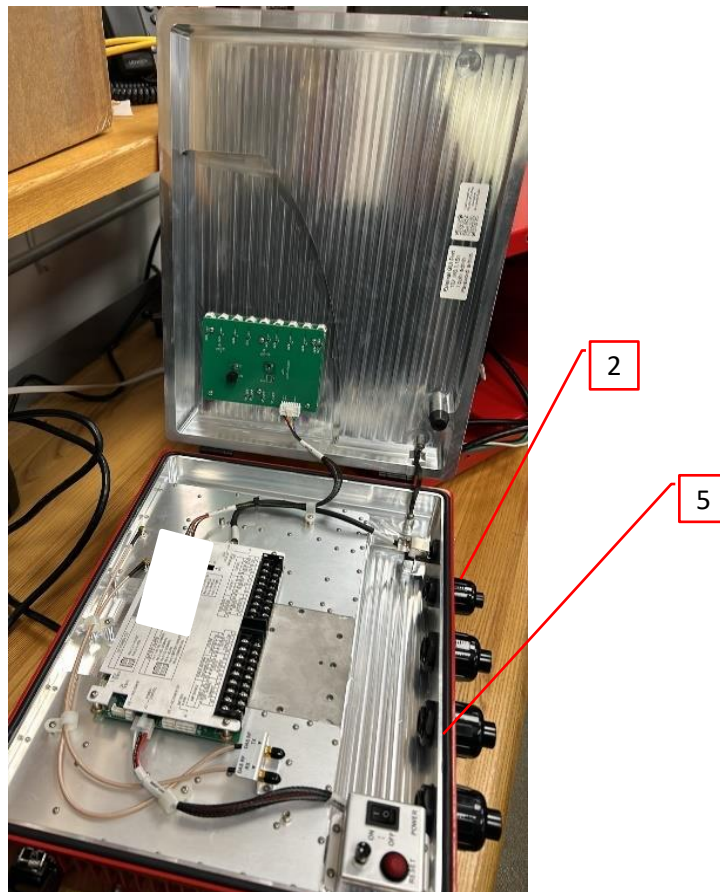


Photo 4 - EXTERNAL VIEW OF CS19-BBU-005



3.0 Product Photographs

Photo 5 - INTERNAL VIEW OF CS19-BBU-005 BATTERY ENCLOSURE ASSEMBLY



3.0 Product Photographs

Photo 6 - INTERNAL VIEW OF CS19-BBU-005 CHARGER BOX ASSEMBLY SIDECAR



4.0 Critical Components						
Photo #	Item no. ¹	Name	Manufacturer/ trademark ²	Type / model ²	Technical data and securement means	Mark(s) of conformity ³
1	1	CS45-734-834-A0 ENCLOSURE	Dabotech	ProtectLink BDA	Aluminum Minimum Thickness: 3.09mm Approximate dimensions: 320mm x 420mm x 159mm Type 4	NR
1, 3, 4	2	Conduit Fittings	Heyco	8403	HFC 1/2 , 1/2" NPT, UL File E121095, 94V-2, IP 68 up to 70 psi (5 bar) water pressure	UR
1	3	CS45-734-834-A0 Latch	WOOSUNG	WS-M500	Zinc Alloy, Chrome Plated, Black Paint	NR
2	4	CS45-734-834-A0 Hinge	KONGJIN	KH-69-3BP	Zinc Alloy, Chrome Plating, Black painting Allowable load: 4kgf	NR
3, 5	5	Gasket	KCC Silicone Corporation	SH1520U	V-0, 150C., 6.2mm diameter UL Category Code QMFZ2	cURus
4	6	CS19-BBU-005 BATTERY ENCLOSURE ASSEMBLY	Westell	080-502098	Aluminum Minimum Thickness: 2.10mm Approximate Dimensions: 382.7mm x 475.5mm x 460.4mm Type 3R	NR
4, 6	7	CS19-BBU05 CHARGER BOX ASSEMBLY SIDE CAR	Westell	080-502099	Steel Minimum Thickness: 2.33mm Approximate dimensions: 254mm x 304.8mm x 335mm Type 4	NR
4	8	CS19-BBU05 CHARGER BOX ASSEMBLY SIDE CAR Coating	Hentzen	P90630RRC	Coating for Steel Enclosure UL 1332 Recognized, UL File MH25723	UR
5	9	CS19-BBU-005 BATTERY ENCLOSURE ASSEMBLY HINGE	Southco (E480315)	96-10-500-50	Zinc Alloy, Black Powder Coated Max Static Axial Load: 2200N Environmental Rating: Type 1, Type 12, Type 12K, Type 13, Type 2, Type 3, Type 3R, Type 3RX, Type 3X, Type 4, Type 4X, Type 5	UR

4.0 Critical Components						
Photo #	Item no. ¹	Name	Manufacturer/ trademark ²	Type / model ²	Technical data and securement means	Mark(s) of conformity ³
5	10	CS19-BBU-005 BATTERY ENCLOSURE ASSEMBLY LATCH	Southco (E480315)	E5-6-005-UU1	Zinc Alloy, powder coated Max Static Load: 330N Environmental Rating: Type 1, Type 12, Type 12K, Type 13, Type 2, Type 3, Type 3R, Type 3RX, Type 3X, Type 4, Type 4X, Type 5	UR
5	11	CS19-BBU05 CHARGER BOX ASSEMBLY SIDE CAR Fastening (NOT SHOWN)	Various	Various	8-32 X 3/8 Stainless Steel	NR
NOTES: 1) Not all item numbers are indicated (called out) in the photos, as their location is obvious. 2) "Various" means any type, from any manufacturer that complies with the "Technical data and securement means" and meets the "Mark(s) of conformity" can be used. 3) Indicates specific marks to be verified, which assures the agreed level of surveillance for the component. "NR" - indicates Unlisted and only visual examination is necessary. "See 5.0" indicates Unlisted components or assemblies to be evaluated periodically refer to section 5.0 for details.						

5.0 Critical Unlisted CEC Components

No Unlisted CEC components are used in this report.

6.0 Critical Features

Recognized Component - A component part, which has been previously evaluated by an accredited certification body with restrictions and must be evaluated as part of the basic product considering the restrictions as specified by the Conditions of Acceptability.

Listed Component - A component part, which has been previously Listed or Certified by an accredited Certification Organization with no restrictions and is used in the intended application within its ratings.

Unlisted Component - A part that has not been previously evaluated to the appropriate designated component standard. It may also be a Listed or Recognized component that is being used outside of its evaluated Listing or component recognition.

Critical Features/Components - An essential part, material, subassembly, system, software, or accessory of a product that has a direct bearing on the product's conformance to applicable requirements of the product standard.

Construction Details - For specific construction details, reference should be made to the photographs and descriptions. All dimensions are approximate unless specified as exact or within a tolerance. In addition to the specific construction details described in this Report, the following general requirements also apply.

1. Corrosion Protection - All ferrous metal parts are protected against corrosion by painting, plating or the equivalent.
2. Grounding - All exposed dead-metal parts and all dead-metal parts within the enclosure that are exposed are connected to the ground bonding lug of the product enclosure.
3. Schematics - Refer to Illustration 2 items 2 and 3 for schematics requiring verification during Field Representative Inspection Audits.
4. Markings - The product is marked on a UL 969 approved material identified in item 1a of section 4 following labeling system as described in Illustration 1.
5. Installation, Operating and Safety Instructions - Instructions for installation and use of this product are provided by the manufacturer. Refer to Illustration 2 item 1 for details.

7.0 Illustrations

Illustration 1 - Marking Requirements



The product is to be marked on a labeling system as follows:

1. "NEMA Type 4" (Located on Model CS45-734-834-A0 and CS19-BBU05 Charger Box Assembly Side Car)
2. NEMA Type 3R (Located on CS19-BBU-005 Battery Enclosure Assembly)

Illustration 2 - Table of Controlled Documents that must be available at the factory during inspections

Item #	Document #	Rev. #	Title/Description	Comments to Field Representative
1	030-102049	A	ProtectLink CS45-734-834-A0 Public Safety Bi-directional Amplifier Installation and Users Guide	Verify Document # & Revision #
2	094-002551	A	CS19-BBU-005 BATTERY BOX ENCLOSURE ASSEMBLY	
3	521-007506	A	ENCLOSURE, CHARGER BOX BASE FOR BBU	
4	IRS2407-A001A	1.0	BDA2.5 Outdrawing	

8.0 Test Summary					
Evaluation Period	3/11/2025			Project No.	G106084609
Sample Rec. Date	NA	Condition	Production	Sample ID.	AH02242025010816
Test Location	Westell Inc. 750 N. Commons Drive, Aurora, IL 60504				
Test Procedure	Test Data Acceptance - Level 3				
Determination of the result includes consideration of measurement uncertainty from the test equipment and methods. The product was tested as indicated below with results in conformance to the relevant test criteria.					
The following tests were performed:					
Test Description			UL 50	UL 50E	
Rain Test			-	8.3	
Evaluation Period	03/04/2025 - 04/03/2025			Project No.	G106084609
Sample Rec. Date	24-Feb-2025	Condition	Production	Sample ID.	AH02242025010816
Test Location	Intertek 545 E. Algonquin Rd., Arlington Heights, IL 60005, USA				
Test Procedure	Testing Lab				
Determination of the result includes consideration of measurement uncertainty from the test equipment and methods. The product was tested as indicated below with results in conformance to the relevant test criteria.					
The following tests were performed:					
Test Description			UL 50	UL 50E	
Hinge Strength Test			8.3	-	
Hosedown			-	8.6	
Rod Entry			8.9	8.14	

8.1 Signatures			
A representative sample of the product covered by this report has been evaluated and found to comply with the applicable requirements of the standards indicated in Section 1.0.			
Completed by:	Jahvon Fox	Reviewed by:	Brett Alsop
Title:	Project Engineer	Title:	Review Engineer
Signature:		Signature:	

9.0 Correlation Page For Multiple Listings

The following products, which are identical to those identified in this report except for model number and Listee name, are authorized to bear the ETL label under provisions of the Intertek Multiple Listing Program.

BASIC LISTEE	Westell Inc.
Address	750 N. Commons Dr. Aurora, IL, 60504
Country	USA
Product	Public Safety Bi-directional Amplifier Enclosure

MULTIPLE LISTEE 1	None
Address	
Country	
Brand Name	
ASSOCIATED MANUFACTURER	
Address	
Country	
MULTIPLE LISTEE 1 MODELS	BASIC LISTEE MODELS

MULTIPLE LISTEE 2	None
Address	
Country	
Brand Name	
ASSOCIATED MANUFACTURER	
Address	
Country	
MULTIPLE LISTEE 2 MODELS	BASIC LISTEE MODELS

MULTIPLE LISTEE 3	None
Address	
Country	
Brand Name	
ASSOCIATED MANUFACTURER	
Address	
Country	
MULTIPLE LISTEE 3 MODELS	BASIC LISTEE MODELS

10.0 General Information

The Applicant and Manufacturer have agreed to produce, test and label ETL Listed products in accordance with the requirements of this Report. The Manufacturer has also agreed to notify Intertek and to request authorization prior to using alternate parts, components or materials.

COMPONENTS

Components used shall be those itemized in this Intertek report covering the product, including any amendments

LISTING MARK

The ETL Listing mark applied to the products shall either be separable in form, such as labels purchased from Intertek, or on a product nameplate or other media only as specifically authorized by Intertek. Use of the mark is subject to the control of Intertek.

The mark must include the following four items:

- 1) applicable country identifiers "US" and/or "C" or "US", "C" and "EU"
- 2) the word "Listed" or "Classified" or "Recognized Component" (whichever is appropriate)
- 3) a control number issued by Intertek
- 4) a product descriptor that identifies the standards used for certification. Example:

For US standards, the words, "Conforms to" shall appear with the standard number along with the word, "Standard" or "Std." Example: "Conforms to ANSI/UL Std. XX."

For Canadian standards, the words "Certified to CAN/CSA Standard CXX No. XX." shall be used, or abbreviated, "Cert. to CAN/CSA Std. CXX No. XX."

Can be used together when both standards are used.

If all standards on the ATM have the same standard title, the shared title or its abbreviation may be used in place of the examples above. Example: "Medical Electrical Equipment" or "MEE"; "Information Technology Equipment" or "ITE"; "Audio/Video Information And Communication Technology Equipment" or "A/V ICTE".

Note: A facsimile must be submitted to Intertek, Attn: Follow-up Services for approval prior to use.

The facsimile need not have a control number. A control number will be issued **after signed Certification Agreements** have been received by the Follow-up Services office, approval of the facsimile of your proposed Listing Mark, satisfactory completion of the Listing Report, and scheduling of a factory assessment in your facility.

MANUFACTURING AND PRODUCTION TESTS

Manufacturing and Production Tests shall be performed as required in this Report.

FOLLOW-UP SERVICE

Periodic unannounced audits of the manufacturing facility (and any locations authorized to apply the mark) shall be scheduled by Intertek. An audit report shall be issued after each visit. Special attention will be given to the following:

1. Conformance of the manufactured product to the descriptions in this Report.
2. Conformance of the use of the ETL mark with the requirements of this Report and the Certification Agreement.
3. Manufacturing changes.
4. Performance of specified Manufacturing and Production Tests.

In the event that the Intertek representative identifies non-conformance(s) to any provision of this Report, the Applicant shall take one or more of the following actions:

1. Correct the non-conformance.
2. Remove the ETL Mark from non-conforming product.
3. Contact the issuing product safety evaluation center for instructions.

10.1 Evaluation of Unlisted Components

Because Unlisted Components are uncontrolled, and they do not fall under a third party follow up program, Intertek may require these components to be tested and/or evaluated at least once annually, more often for certain components, as part of the independent certification process. The Unlisted Components in Section 5.0 require testing and/or evaluation as indicated.

The Applicant will be notified, in writing, via the applicable contact methods, as defined in Section 1.0, when these components must be selected and sent to Component Evaluation Center (CEC) for re-evaluation.

Due to particular testing requirements, some components may be requested to be shipped to specific labs. Thus, specific shipment destination(s) for each sample will be provided in the written notification.

Managing CEC Location:
Intertek Testing Services NA Inc.
ETL Component Evaluation Center
1717 Arlingate Ln.
Columbus, Ohio 43228 USA
Attn: CEC Safety

Sample Disposition: Due to the destructive nature of the testing, all samples will be discarded at the conclusion of testing unless, the manufacturer specifically requests the return of the samples. The request for return must accompany the initial component shipment.

11.0 Manufacturing and Production Tests

The manufacturer agrees to conduct the following Manufacturing and Production Tests as specified:

Required Tests

NA

12.0 Revision Summary

The following changes are in compliance with the declaration of Section 8.1:

[illegible]