

TECHNICAL BULLETIN

TB-25-002

Title: Major Changes in New Version 4 of Assembly No. ASSY-1513 – Wildlife Protection Equipment

Issue Date: 08/11/2025

Effective Date: 08/12/2025

Department: Distribution Standards and Materials

Addressed to:

Engineers, Designers, Consultants, Developers, Contractors, Master Electricians, Puerto Rico Electrical Contractors Association, Electrical Equipment Manufacturers, Electrical Engineers Institute, Electrical Engineers Society, Engineers and Surveyors Professional College, Master Electricians Professional College Directors, Managers, Supervisors, Inspectors, and the public.

Approval:

Approved by: <u>Ricardo Castro Gómez, PE Lic. 12135</u> Manager, Distribution Standards and Materials	Signature and Date:  08/11/2025
Approved by: <u>Reinaldo Baretty Huertas, PE Lic. 16712</u> Director, System Standards and Records	Signature and Date:  08/12/2025

This Bulletin annuls and replaces the following Bulletin(s): N/A

Referenced Documents

Document Number	Title	Version	Date
4301.079	Assembly no. ASSY-1513 – Wildlife Protection Equipment	3	02/05/2024
4301.09.079	Assembly no. ASSY-1513 – Wildlife Protection Equipment	4	08/11/2025

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1. Introduction

As the responsible entity, **LUMA Energy** establishes and updates the norms, standards, and regulations that guarantee the construction and installation of equipment in the transmission and distribution system. The regulations are adjusted according to the technological changes that affect our system through releases and technical bulletins. These documents provide immediate guidelines for the construction and installation of technical equipment.

The dynamic nature of the standard drawings demands continuous improvement to address the continually changing requirements related to safety, reliability, design, construction, and the inclusion of new materials in the electrical distribution standards. Therefore, the overhead assembly no. ASSY-1513, document no. 4301.079, dated February 5, 2024, needs to be modified. An overview of the modifications made to this standard is included, along with the updated standard and its applicability.

2. Technical Norms or Provisions

Modifications to assembly no. ASSY-1513, Wildlife Protection Equipment, document no. 4301.079, dated February 5, 2024, were made to add new materials, simplify installation instructions, and maintain compliance with current applicable industry standards and materials. Among the most significant changes are:

- A. A new air break switch guard (ABS) for wildlife protection (item 0209) has been added to provide enhanced protection for wildlife. It is designed to prevent wildlife from coming into contact with live electrical components.
- B. Modifications to drawings and notes for bird-flight diverters (item 0170) installation to clarify and ensure proper installation.
- C. Notes and details were added to the drawings for wildlife protection equipment to update and facilitate their installation.

- D. The applicator ring tool (item 0167) was removed from the drawings and bill of materials list, and instructions for its use were added as a note.

This new version is applicable for all new designs for overhead distribution projects to be transferred to LUMA's operation and maintenance.

3. Appendixes

Assembly no. ASSY-1513 (V4) – Wildlife Protection Equipment



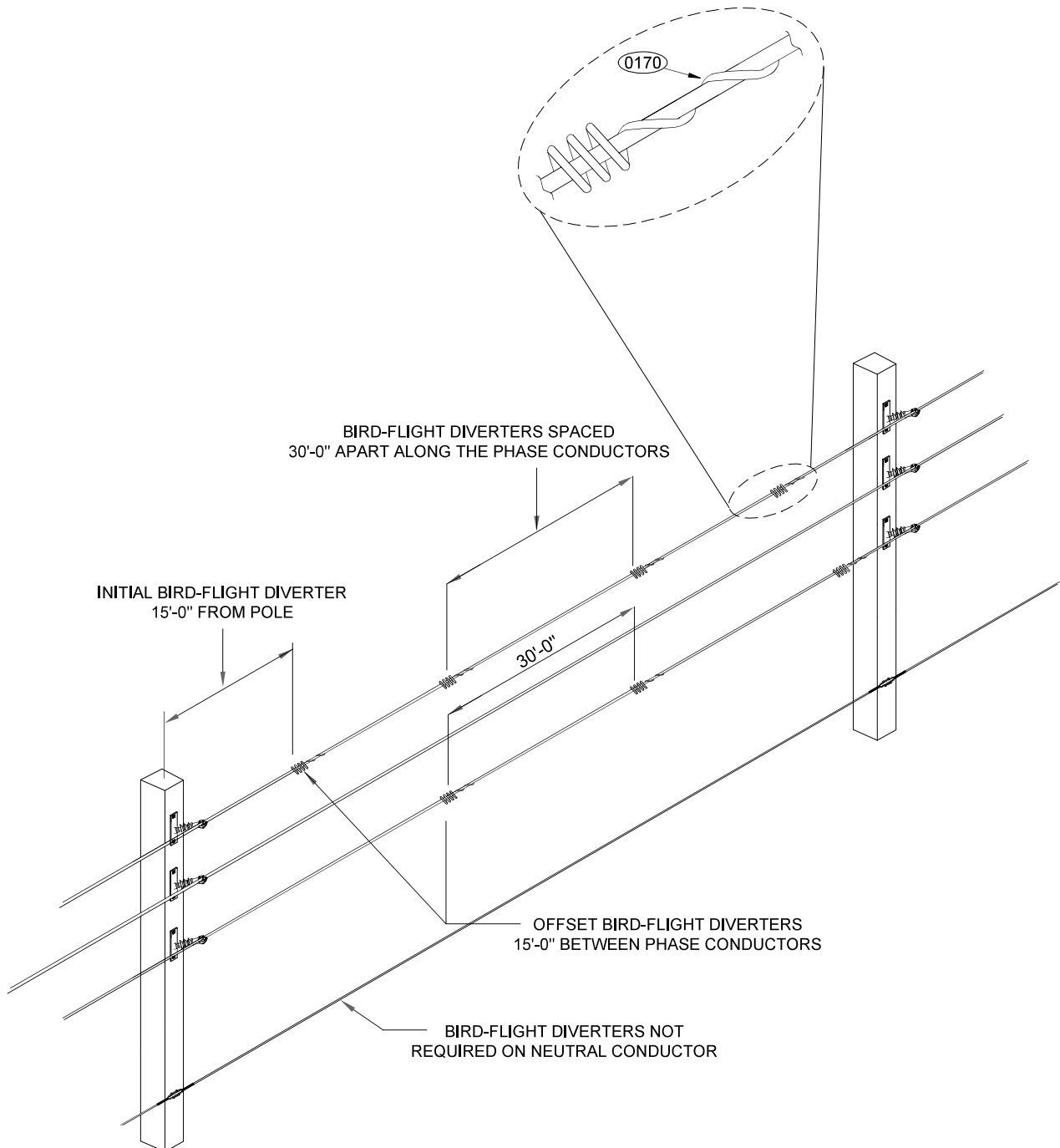
DISTRIBUTION ENGINEERING

OVERHEAD DISTRIBUTION STANDARDS

TITLE:

WILDLIFE PROTECTION EQUIPMENT
MAXIMUM VOLTAGE: 13.2 KV

ASSEMBLY NO.	ASSY-1513	VERSION	4
DOCUMENT NO.	4301.09.079		
PAGE	1 OF 4	DATE	AUG 11, 2025
SUBMITTED	LUIS R. SOTO LIC. 11658		
REVIEWED	IVETTE D. SANCHEZ LIC. 13837		
APPROVED	RICARDO CASTRO LIC. 12135		
DIGITIZED	EMILIO CUADRADO LIC. 3000		
	VICTOR R. FEBRES LIC. 3412		



BIRD-FLIGHT DIVERTERS INSTALLATION
(SEE NOTES 3 AND 4)



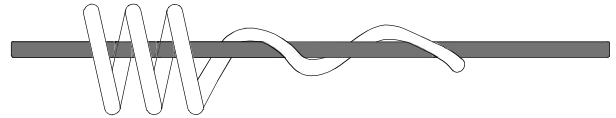
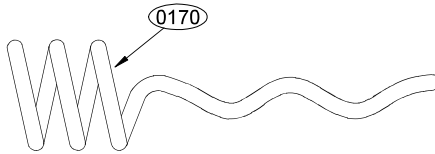
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OVERHEAD DISTRIBUTION STANDARDS

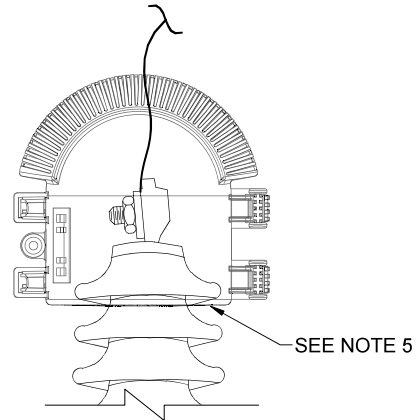
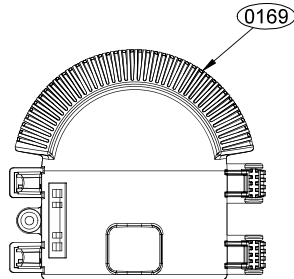
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WILDLIFE PROTECTION EQUIPMENT
MAXIMUM VOLTAGE: 13.2 KV

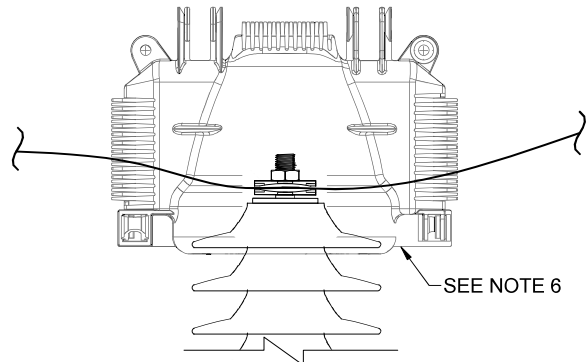
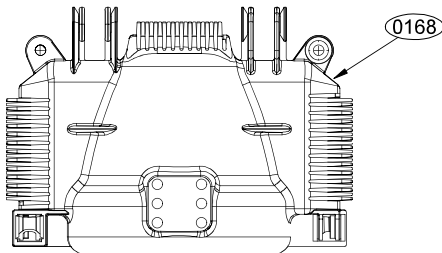
ASSEMBLY NO.	ASSY-1513	VERSION	4
DOCUMENT NO.	4301.09.079		
PAGE	2 OF 4	DATE	AUG 11, 2025
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	VICTOR R. FEBRES LIC. 3412		



BIRD-FLIGHT DIVERTER (SEE NOTES 1, 2, 3, AND 4)



TRANSFORMER BUSHING GUARD FOR WILDLIFE PROTECTION



SURGE ARRESTER GUARD FOR WILDLIFE PROTECTION



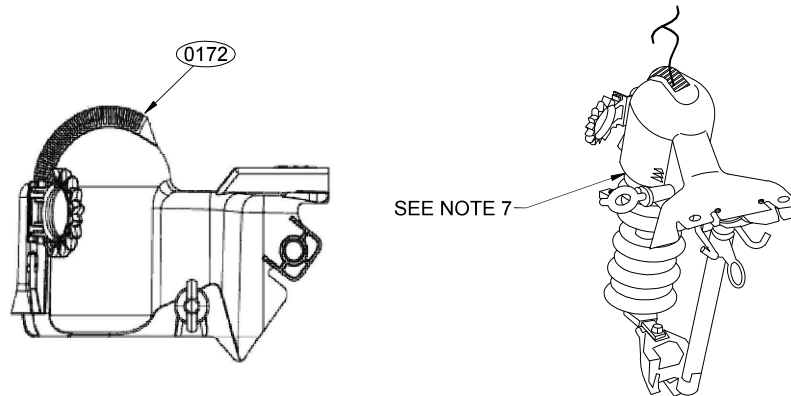
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OVERHEAD DISTRIBUTION STANDARDS

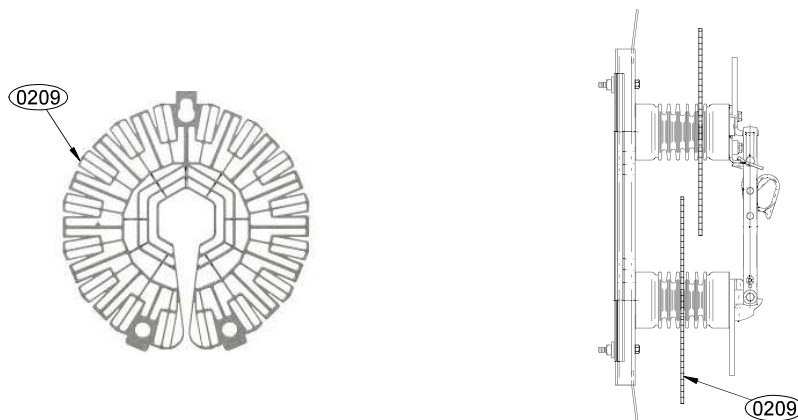
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WILDLIFE PROTECTION EQUIPMENT
MAXIMUM VOLTAGE: 13.2 KV

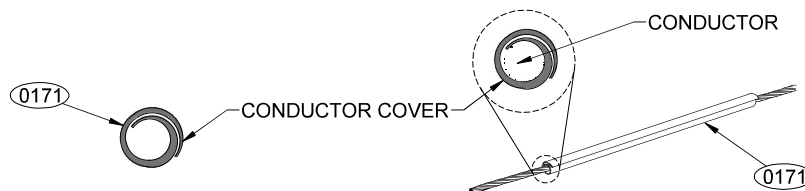
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DOCUMENT NO.	4301.09.079		
PAGE	3 OF 4	DATE	AUG 11, 2025
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FUSE CUTOUT GUARD
FOR WILDLIFE PROTECTION



AIR BREAK SWITCH GUARD
FOR WILDLIFE PROTECTION



CONDUCTOR COVER GUARD
FOR WILDLIFE PROTECTION
(SEE NOTE 8)



DISTRIBUTION ENGINEERING

OVERHEAD DISTRIBUTION STANDARDS

TITLE:

**WILDLIFE PROTECTION EQUIPMENT
MAXIMUM VOLTAGE: 13.2 KV
NOTES AND BILL OF MATERIAL**

ASSEMBLY NO. ASSY-1513 VERSION 4
DOCUMENT NO. 4301.09.079
PAGE 4 OF 4 DATE AUG 11, 2025
SUBMITTED LUIS R. SOTO LIC. 11658
REVIEWED IVETTE D. SANCHEZ LIC. 13837
APPROVED RICARDO CASTRO LIC. 12135
DIGITIZED EMILIO CUADRADO LIC. 3000
VICTOR R. FEBRES LIC. 3412

MATERIALS

NO.	GENERAL DESCRIPTION	WAREHOUSE ITEM	QTY.
0168	SURGE ARRESTER GUARD FOR WILDLIFE PROTECTION	072-82376	AS REQ.
0169	TRANSFORMER BUSHING GUARD FOR WILDLIFE PROTECTION	072-82416	AS REQ.
0170	BIRD-FLIGHT DIVERTER	VARIES	AS REQ.
0171	CONDUCTOR COVER GUARD FOR WILDLIFE PROTECTION	VARIES	AS REQ.
0172	FUSE CUTOFF GUARD FOR WILDLIFE PROTECTION	072-82414	AS REQ.
0209	AIR BREAK SWITCH GUARD FOR WILDLIFE PROTECTION	072-87696	AS REQ.

NOTES:

1. BIRD-FLIGHT DIVERTERS (ITEM 0170) SHALL BE INSTALLED IN PROTECTED AREAS, SUCH AS BIRD SANCTUARIES.
2. BIRD-FLIGHT DIVERTERS (ITEM 0170) CAN BE INSTALLED BY HAND OR USING AN APPLICATOR RING TOOL (ITEM 0167) ON A UNIVERSAL HOT STICK AND A SHOTGUN STICK.
3. FOR VERTICAL CONSTRUCTION, BIRD-FLIGHT DIVERTERS (ITEM 0170) SHALL BE INSTALLED ON THE UPPER AND LOWER PHASE CONDUCTORS. THE INITIAL DIVERTER ON THE TOP CONDUCTOR SHALL BE OFFSET 15'-0" FROM THE POLE. THE INITIAL DIVERTER ON THE BOTTOM CONDUCTOR SHALL BE OFFSET 15'-0" FROM THE ONE ON THE UPPER CONDUCTOR. SUBSEQUENTLY, ON THE SAME PHASE CONDUCTOR, DIVERTERS SHALL BE PLACED 30'-0" APART.
4. FOR DELTA CONSTRUCTION, BIRD-FLIGHT DIVERTERS (ITEM 0170) SHALL BE INSTALLED ON ALL PHASE CONDUCTORS. THE INITIAL DIVERTER ON THE FIRST CONDUCTOR SHALL BE OFFSET 15'-0" FROM THE POLE AND MAINTAINING AN OFFSET OF 15'-0" BETWEEN THE DIVERTERS ON OTHER CONDUCTORS. SUBSEQUENTLY, ON THE SAME PHASE CONDUCTOR, DIVERTERS SHALL BE PLACED 30'-0" APART.
5. WHEN INSTALLING THE TRANSFORMER BUSHING GUARD FOR WILDLIFE PROTECTION (ITEM 0169), ONLY THE TOP SKIRT OF THE INSULATOR MUST BE CONTAINED WITHIN THE GUARD.
6. WHEN INSTALLING THE SURGE ARRESTER GUARD FOR WILDLIFE PROTECTION (ITEM 0168), ONLY THE TOP SKIRT OF THE INSULATOR MUST BE CONTAINED WITHIN THE GUARD.
7. WHEN INSTALLING THE FUSE CUTOFF GUARD FOR WILDLIFE PROTECTION (ITEM 0172), ONLY THE TOP SKIRT OF THE INSULATOR MUST BE CONTAINED WITHIN THE GUARD.
8. CONDUCTOR COVER GUARD FOR WILDLIFE PROTECTION (ITEM 0171) SHALL BE INSTALLED TO FULLY ENCLOSE THE CABLE SECTIONS AS PER MANUFACTURER'S INSTRUCTIONS.









TB-25-002 Major Changes ASSY-1513

Final Audit Report

2025-08-12

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