

# Saudi Electricity Company

Distribution Services Sector



## SPECIFICATION FOR ANTI-TAMPERING WARNING STICKERS FOR FIBERGLASS REINFORCED METERBOXES & KWH-METERS

Issue Date:

16-02-2025

42-SDMS-04 REV. 1.1

# 42-SDMS-04

## REV. 1.1

### SPECIFICATION

### FOR

## ANTI-TAMPERING WARNING STICKERS FOR FIBERGLASS REINFORCED METERBOXES & KWH-METERS

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WARNING STICKERS FOR FIBERGLASS  
REINFORCED METERBOXES & KWH-METERS****Issue Date:**  
16-02-2025**Page:** 1 of 15**42-SDMS-04 REV. 1.1****42-SDMS-04****REV. 1.1****SPECIFICATION****FOR****ANTI-TAMPERING WARNING STICKERS****FOR FIBERGLASS REINFORCED METERBOXES****&****KWH-METERS**

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**Revision History**

#	Date	Revision No.	Major Revision Description
1	26-11-2024	0	1 <sup>st</sup> Published Edition (Prepared By: Edilfredo R. Tarenio)
2	02-12-2024	1	ERT: This version 1.0 replaces version 0.0 to reflect the collective comments from SERA and SEC representatives.
3	16-02-2025	1.1	ERT: This version 1.1 replaces version 1.0 with the following note: - Revise sticker requirement in clause 5.1.1 from clear (transparent) to color light grey reflective film.



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## 1 SCOPE

This specification defines the minimum technical requirements of the anti-tampering warning stickers to be applied in both of the following cases:

- At the front panel of existing fiberglass reinforced polyester meterboxes installed both indoor and outdoor in the distribution system of Saudi Electricity Company (SEC) in Saudi Arabia.
- At the front of KWH-meters (all types of KWH-meters: either electro-mechanical type or electronic/smart-meter type) installed either free-standing outdoors or enclosed inside the meterboxes.

## 2 CROSS REFERENCES

This specification shall always be read in conjunction with the latest revisions of the following SEC specifications which shall be considered as an integral part of this specification.

It shall also be read in conjunction with SEC purchase order and/or contract schedules and scope of work/technical specifications for projects, as applicable.

Specification	Title
01-SDMS-01	General Requirements for all Equipment/Materials
42-SDMS-01	Specification for Fiberglass Reinforced Polyester Meterboxes
42-SDMS-02	Specification for Fiberglass Reinforced Low-Voltage Service Cabinet for 800A Bulk Customers
42-SDMS-03	Specification for Inside Room Fiberglass Reinforced Polyester Meterboxes

Table 1: Applicable SEC specifications.

## 3 APPLICABLE CODES AND STANDARDS

The latest versions of the following codes and standards shall be applicable for the equipment/materials covered in this specification. In case of any deviation, the vendor/manufacture may propose equipment/materials conforming to alternate codes or

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standards subject to review and acceptance by SEC. However, the provisions of SEC standards shall supersede the provisions of these alternate standards in case of any difference.

Standard	Title
ASTM D618	Practice for Conditioning Plastics for Testing
ASTM D792	Test Methods for Density and Specific Gravity (Relative Density) of Plastics by Displacement
ASTM D882	Test Method for Tensile Properties of Thin Plastic Films
ASTM D907	Standard Terminology of Adhesives
ASTM D1000	Standard Test Methods for Pressure-Sensitive Adhesive-Coated Tapes Used for Electrical and Electronic Applications
ASTM G155	Standard Practice for Operating Xenon Arc Lamp Apparatus for Exposure of Materials

Table 2: Applicable Codes and Standards.

## 4 SERVICE CONDITIONS

The stickers shall be suitable for both indoor and outdoor use under the service conditions specified in the latest revision of SEC specification 01-SDMS-01.

## 5 DESIGN AND CONSTRUCTION REQUIREMENTS

### 5.1 General

- 5.1.1 The stickers should be color light grey reflective film with permanent acrylic-base super durable adhesive.
- 5.1.2 The sticker size applied at the front panel of fiberglass reinforced meterboxes should be 12.0 cm x 12.0 cm.
- 5.1.3 The sticker size applied at the front of KWH-meters should be 10.0 cm x 2.5 cm.
- 5.1.4 The stickers shall be provided with a clear polyester UV-blocking overlamine.
- 5.1.5 The UV-blocking overlamine shall provide the stickers up to 10 years outdoor durability.



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- 5.1.6 The UV-blocking overlamine shall have an excellent chemical/solvent and abrasion resistance.
- 5.1.7 The UV-blocking overlamine shall have a glossy finish.
- 5.1.8 The printout of stickers for the fiberglass reinforced meterboxes shall be as shown in *Drawing No. 1.0*.
- 5.1.9 The printout of stickers for the KWH-meters shall be as shown in *Drawing No. 2.0*.



*Drawing No. 1.0 – Printout Details of the Anti-Tampering Warning Sticker for the Fiberglass Reinforced Meterboxes.*



*Drawing No. 2.0 – Printout Details of the Anti-Tampering Warning Sticker for the KWH-Meters.*

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## 6 GUARANTEE

- 6.1 The supplier/manufacture shall guarantee the stickers against all defects arising out of faulty design, manufacturer misinterpretation of the requirements, manufacturing defects and/or defective materials for a period of five (5) years from the date of delivery.
- 6.2 The supplier/manufacture shall guarantee the uniformity of the products delivered with the approved samples and drawings.
- 6.3 The supplier/manufacture shall guarantee that the stickers manufactured under this specification are designed to withstand outdoor use at an ambient temperature of 50°C in Saudi Arabia environmental conditions and the adhesive shall permanently adhere on the surface of the fiberglass reinforced polyester meterboxes.
- 6.4 The supplier/manufacture shall guarantee full compliance with the requirements of this specification. Any clarifications shall be addressed to SEC authorized technical personnel. SEC reserves the sole right to interpret all subject matters involving this specification.
- 6.5 Any deviations or modifications must have written approval from SEC authorized technical representative. Should any unauthorized deviations or modifications be discovered that could potentially compromise the quality of the stickers, SEC reserves the right to blacklist the supplier/manufacture and impose legal actions effective immediately.
- 6.6 The supplier/manufacture shall guarantee upon request of SEC personnel the full disclosure of the documents related to purchase, shipping, conformance testing, and QA & QC processes of all the materials and chemicals related directly or indirectly on the production of the stickers. Copies of the documents shall be submitted upon request of SEC authorized personnel, and presentation of the original documents shall be done if requested.



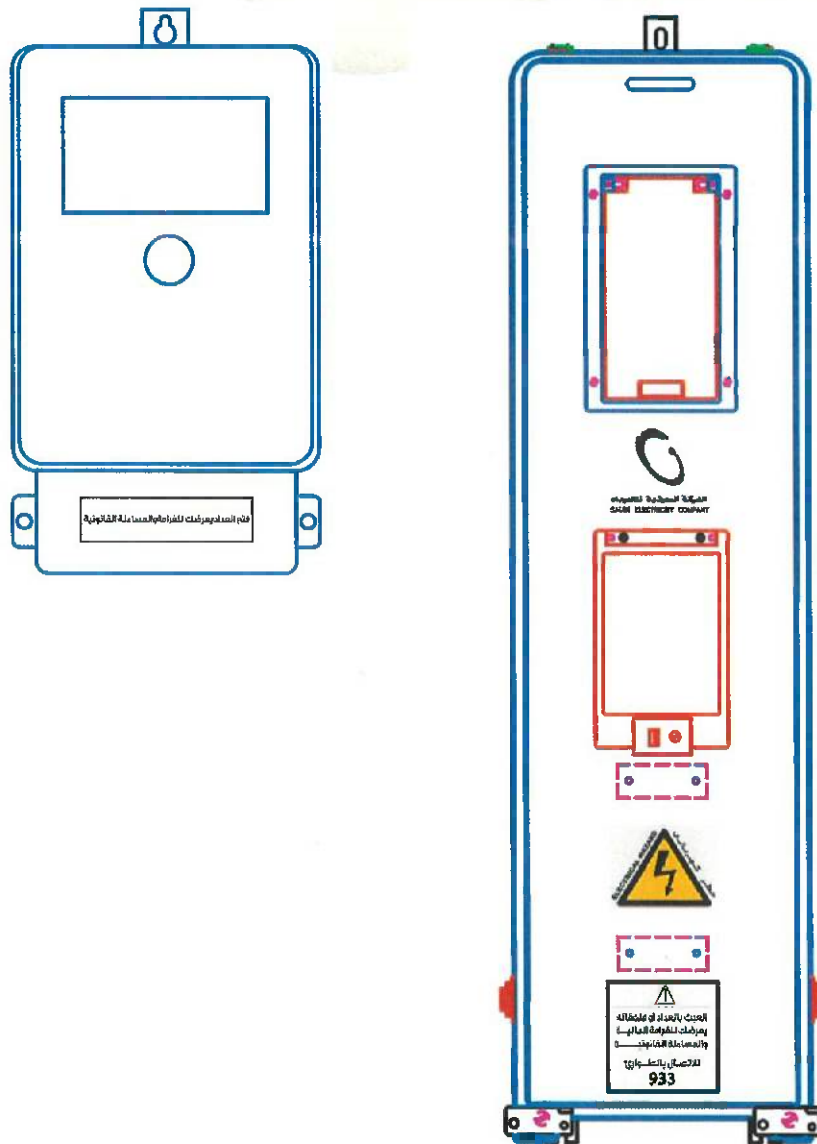
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## 7 DRAWINGS



### SINGLE METERBOX

*Drawing No. 3.0: Sample Illustration on the Application and Positioning of Anti-Tampering  
Warning Stickers for Single-Consumer Fiberglass Reinforced Meterbox*

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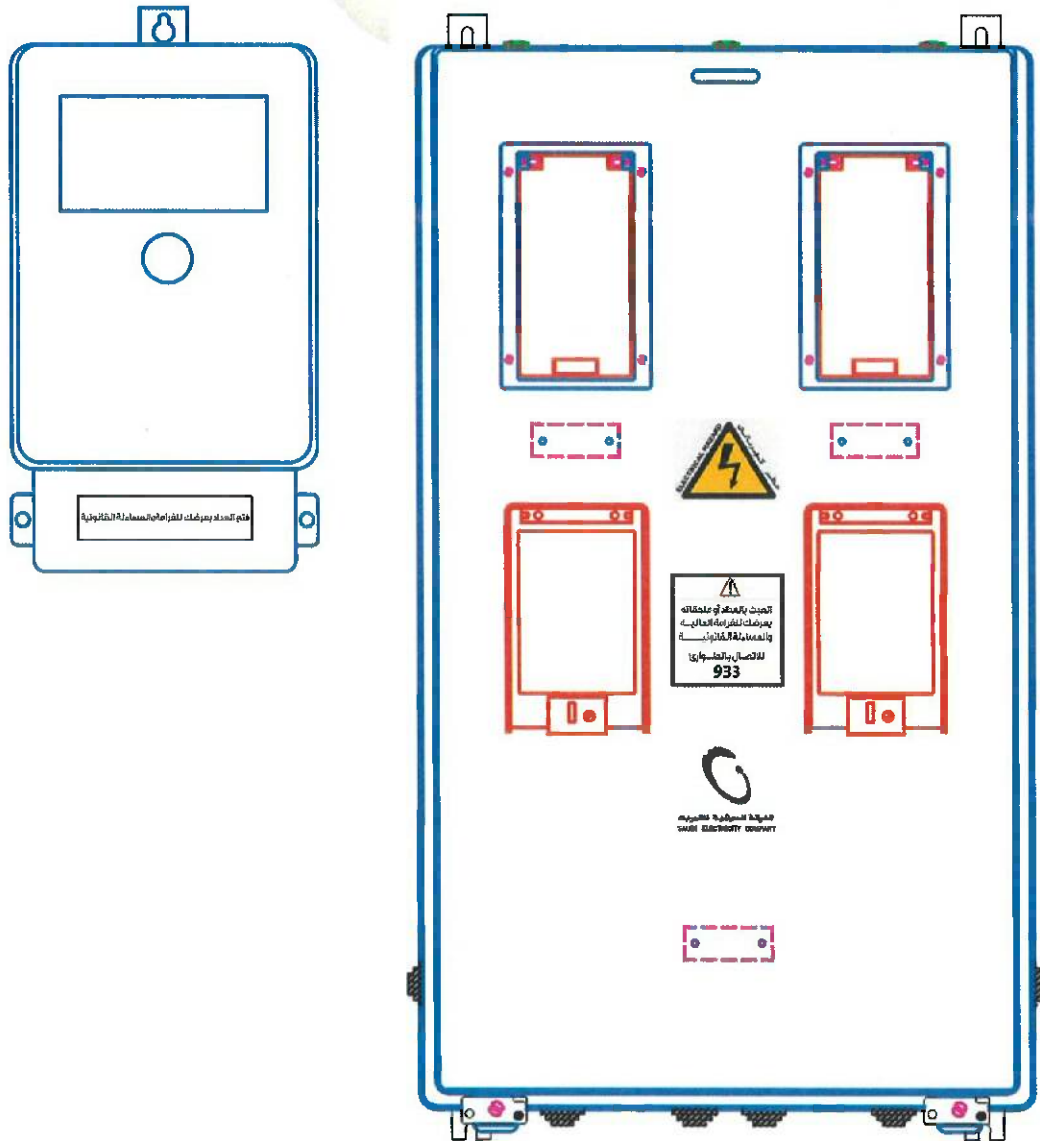


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**DOUBLE METERBOX**

*Drawing No. 4.0: Sample Illustration on the Application and Positioning of Anti-Tampering  
Warning Stickers for Double-Consumer Fiberglass Reinforced Meterbox*

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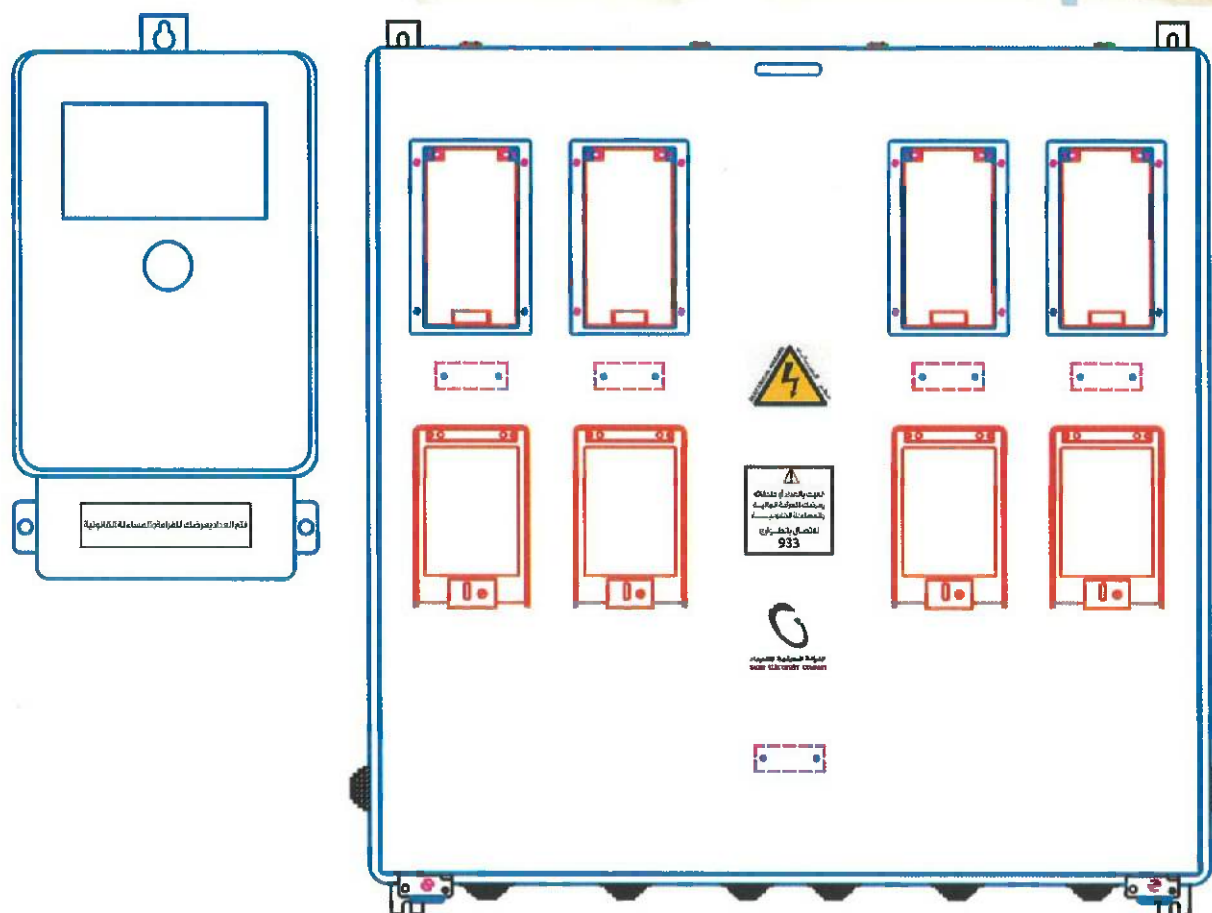
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QUADRUPLE METERBOX

*Drawing No. 5.0: Sample Illustration on the Application and Positioning of Anti-Tampering  
Warning Stickers for Quadruple-Consumer Fiberglass Reinforced Meterbox*



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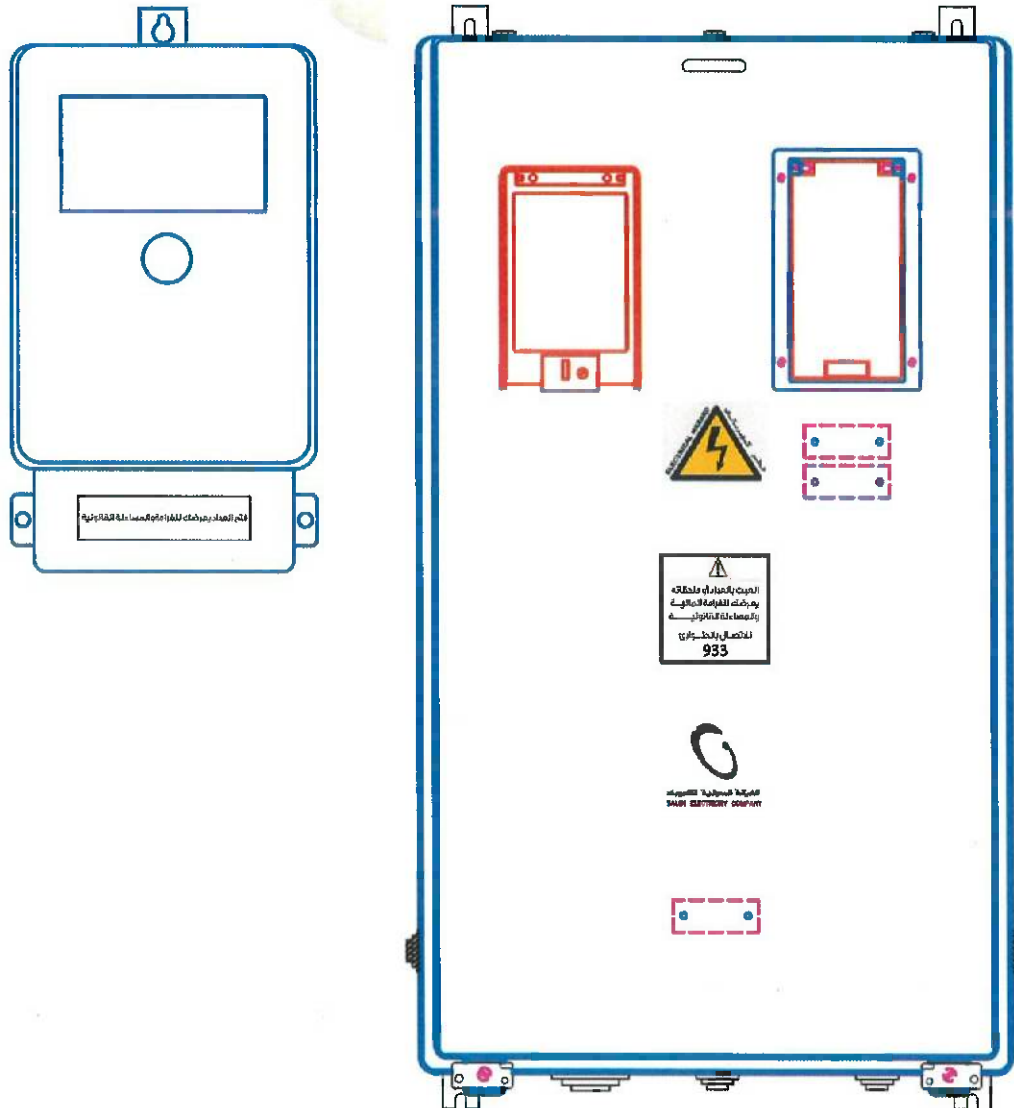


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**200/250A CT METERBOX**

*Drawing No. 6.0: Sample Illustration on the Application and Positioning of Anti-Tampering  
Warning Stickers for 200/250A CT Fiberglass Reinforced Meterbox*

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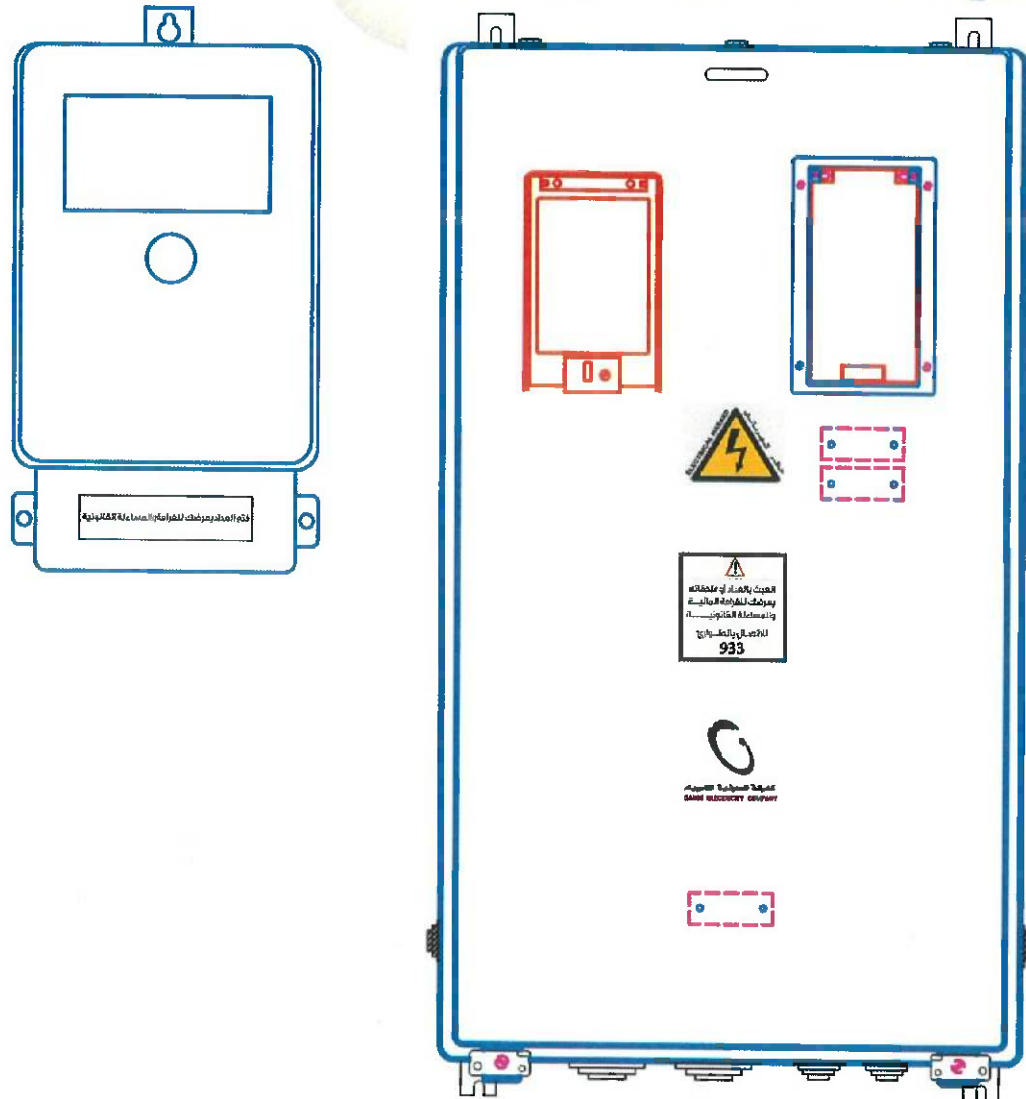


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300/400A CT METERBOX

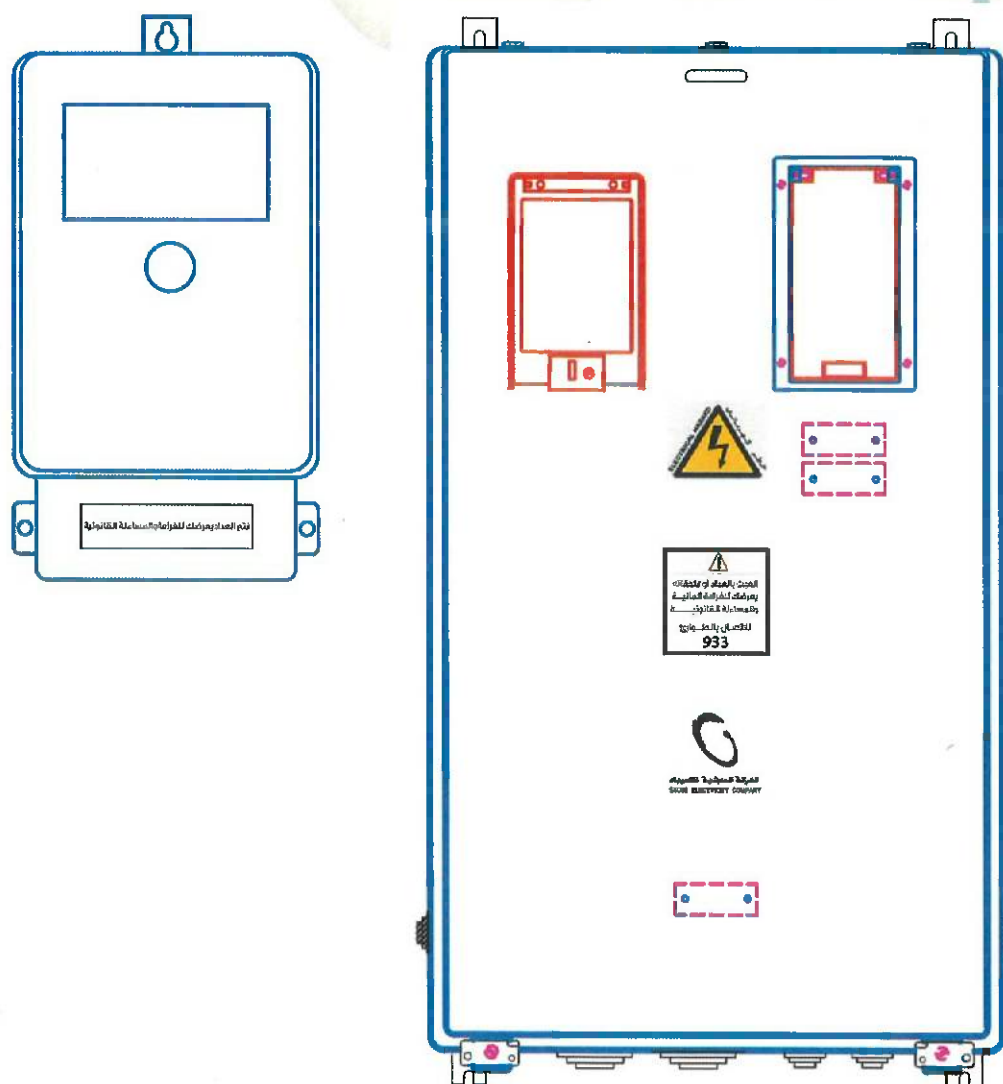
*Drawing No. 7.0: Sample Illustration on the Application and Positioning of Anti-Tampering  
Warning Stickers for 300/400A CT Fiberglass Reinforced Meterbox*

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**500/630A CT METERBOX**

*Drawing No. 8.0: Sample Illustration on the Application and Positioning of Anti-Tampering  
Warning Stickers for 500/630A CT Fiberglass Reinforced Meterbox*



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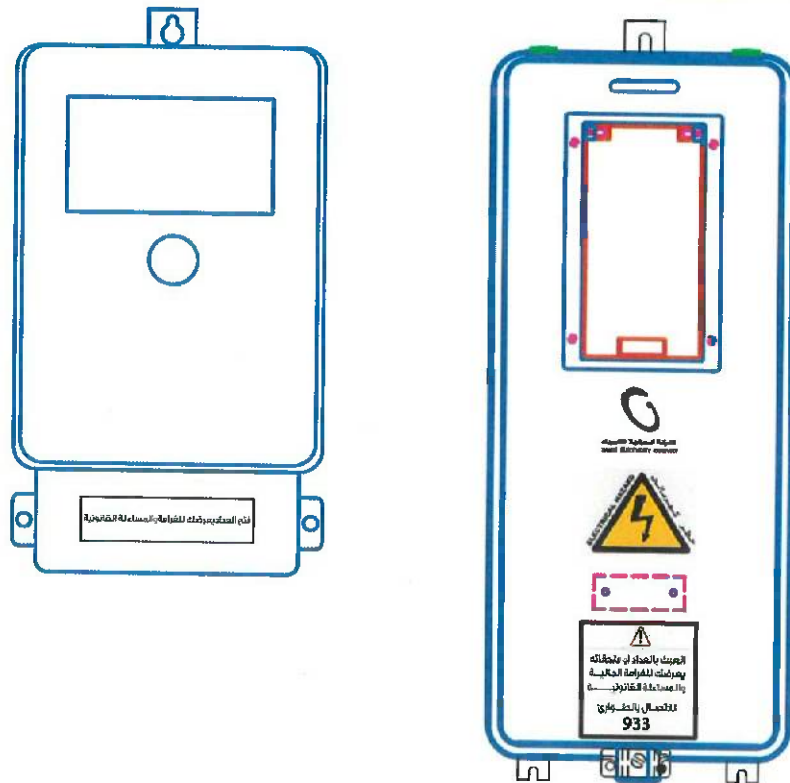


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**REMOTE METERBOX**

*Drawing No. 9.0: Sample Illustration on the Application and Positioning of Anti-Tampering  
Warning Stickers for Remote Fiberglass Reinforced Meterbox*

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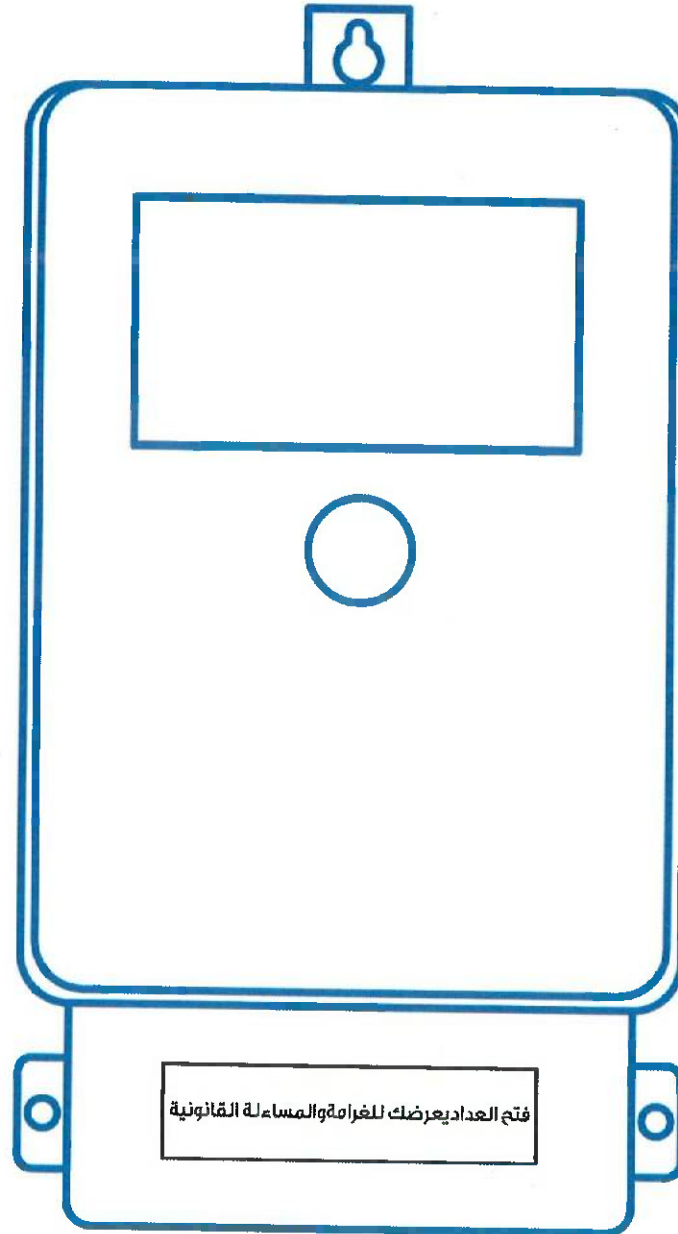


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*Drawing No. 10.0: Sample Illustration on the Application and Positioning of Anti-Tampering Warning Stickers on KWH-Meters Installed Free-Standing Without Meterbox (Inside Building or Outside Building)*