



# Non-Walk-In Outdoor Switchgear

4.76–15.0 kV Metal-Clad Switchgear  
Series 3



## NOTICE

Read these instructions carefully and look at the equipment to become familiar with the device before trying to install, operate, or maintain it. The following special messages may appear throughout this manual to warn of potential hazards and to call attention to additional information which clarifies or simplifies a procedure.



### **DANGER**

Used where there is a hazard of severe bodily injury or death. Failure to follow a "DANGER" instruction *will* result in *severe* bodily injury or death.



### **WARNING**

Used where there is a hazard of bodily injury or death. Failure to follow a "WARNING" instruction may result in bodily injury or death.



### **CAUTION**

Used where there is a hazard of equipment damage. Failure to follow a "CAUTION" instruction may result in damage to equipment.

### **NOTE**

Provides additional information to clarify or simplify a procedure.

---

## CONTENTS

1. INTRODUCTION .....	1
2. SAFETY PRECAUTIONS .....	2
3. RECEIVING, HANDLING, AND STORAGE .....	3
General .....	3
Receiving .....	3
Handling .....	3
Storage .....	4
4. FOUNDATION .....	5
5. INSTALLATION .....	6
6. INSPECTION AND MAINTENANCE .....	8
7. STANDARD COMPONENTS AND PARTS .....	10
8. OUTLINES .....	11
9. INSTALLATION AND MAINTENANCE LOG .....	12

## ILLUSTRATIONS

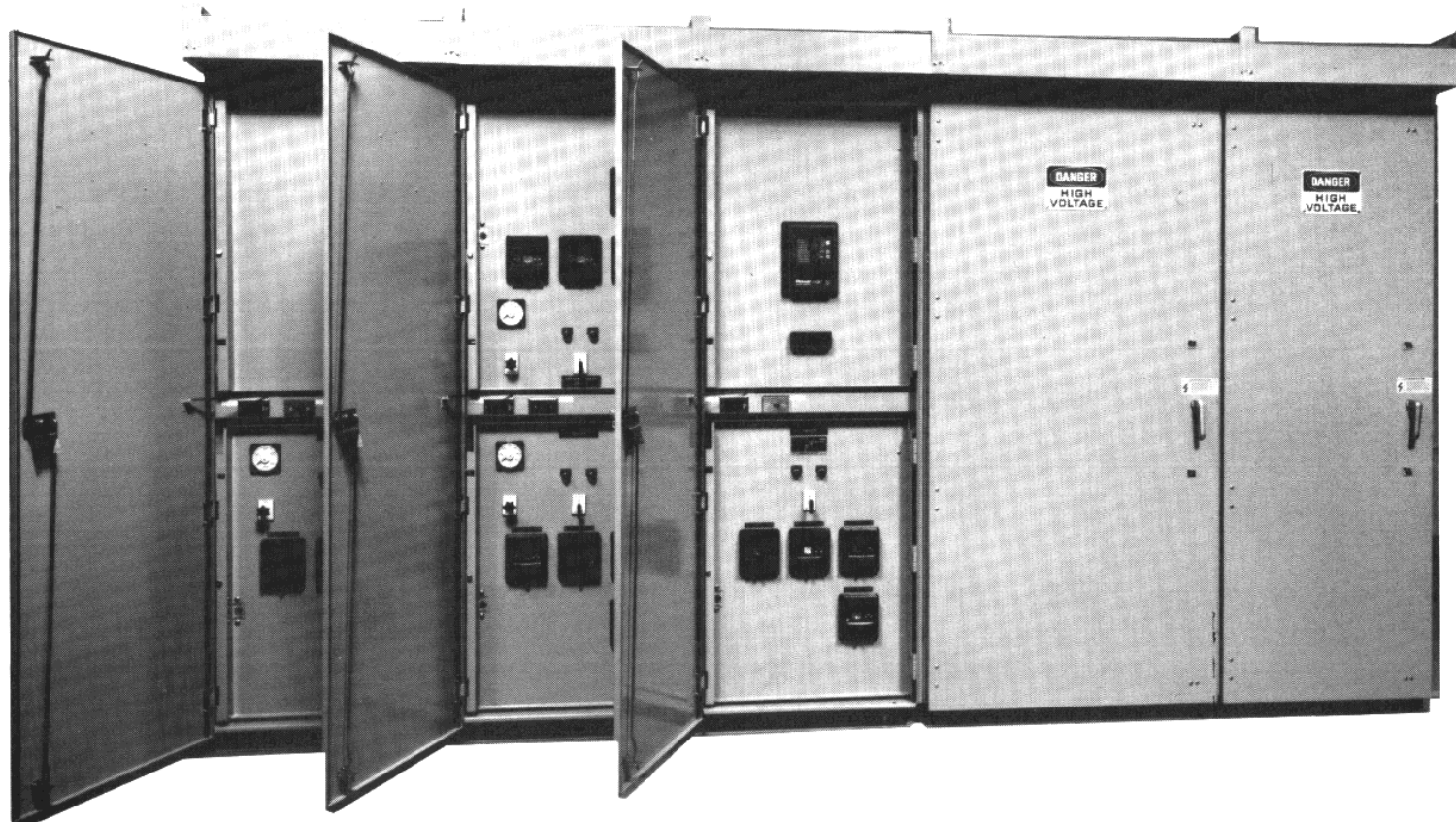
Figure	Page
1. Non-Walk-In Outdoor Switchgear Showing Inner And Outer Doors .....	1
2. Lifting Method .....	3
3. Typical Foundation .....	5
4. Removing Large Lifting Lugs .....	7
5. Removing Small Lifting Lugs .....	7
6. Plugging Holes With Bolts/Sealwashers .....	7
7. Inner Doors .....	9
8. Side View .....	11
9. Front View .....	11

## TABLE

1. Replacement Air Filters .....	8
----------------------------------	---

## SECTION 1—INTRODUCTION

This bulletin contains instructions to be used in conjunction with instruction bulletin 6055-10, *4.76–15.0 kV Metal-Clad Indoor Switchgear Series 3*. The non-walk-in enclosure detailed in this bulletin is bolted onto standard indoor switchgear. All instructions in bulletin 6055-10 apply for the actual switchgear. This bulletin covers receiving, handling, storage, and installation (including foundation preparation) for the non-walk-in enclosure.



*Figure 1: Non-walk-in outdoor switchgear showing inner and outer doors*

## SECTION 2—SAFETY PRECAUTIONS



### **DANGER**

#### **HAZARD OF BODILY INJURY OR EQUIPMENT DAMAGE.**

- All personnel involved in handling, site preparation, installation, testing, operation, and maintenance should be thoroughly familiar with information in this instruction bulletin and customer drawings *before* working on this equipment.
- All safety practices outlined in bulletin 6055-10 apply to the non-walk-in enclosure.
- Avoid exposing internal components of the switchgear to outdoor conditions.

**Failure to observe these precautions will result in severe personal injury, death, or equipment damage!**

### SECTION 3—RECEIVING, HANDLING, AND STORAGE

#### General

Coordinate the timing of the shipment so that the foundation is complete and the switchgear sections can be lifted from the truck to their permanent positions.

#### Receiving

Upon receipt, check the packing list against the equipment received to ensure the order and shipment are complete. Claims for shortages or errors must be made in writing to Square D within 15 days after delivery; failure to give such notice shall constitute unqualified acceptance and a waiver of all such claims by the purchaser.

Also upon receipt, immediately inspect switchgear sections for any damage which may have occurred in transit. If damage is found or suspected, file a claim with the carrier immediately and notify the nearest Square D Company representative. Delivery of the equipment to a carrier at any of the Square D plants or other shipping point constitutes delivery to the purchaser and, regardless of freight payment, title and all risk of loss or damage pass to the purchaser at that time.

#### Handling

### NOTE

The shipping sections are designed to be *lifted with a crane* by the lifting lugs on top of the roof (figure 2). Spreader bars or base jacking are not required. If a crane is not available, special arrangements must be made for unloading the switchgear sections; contact Square D.

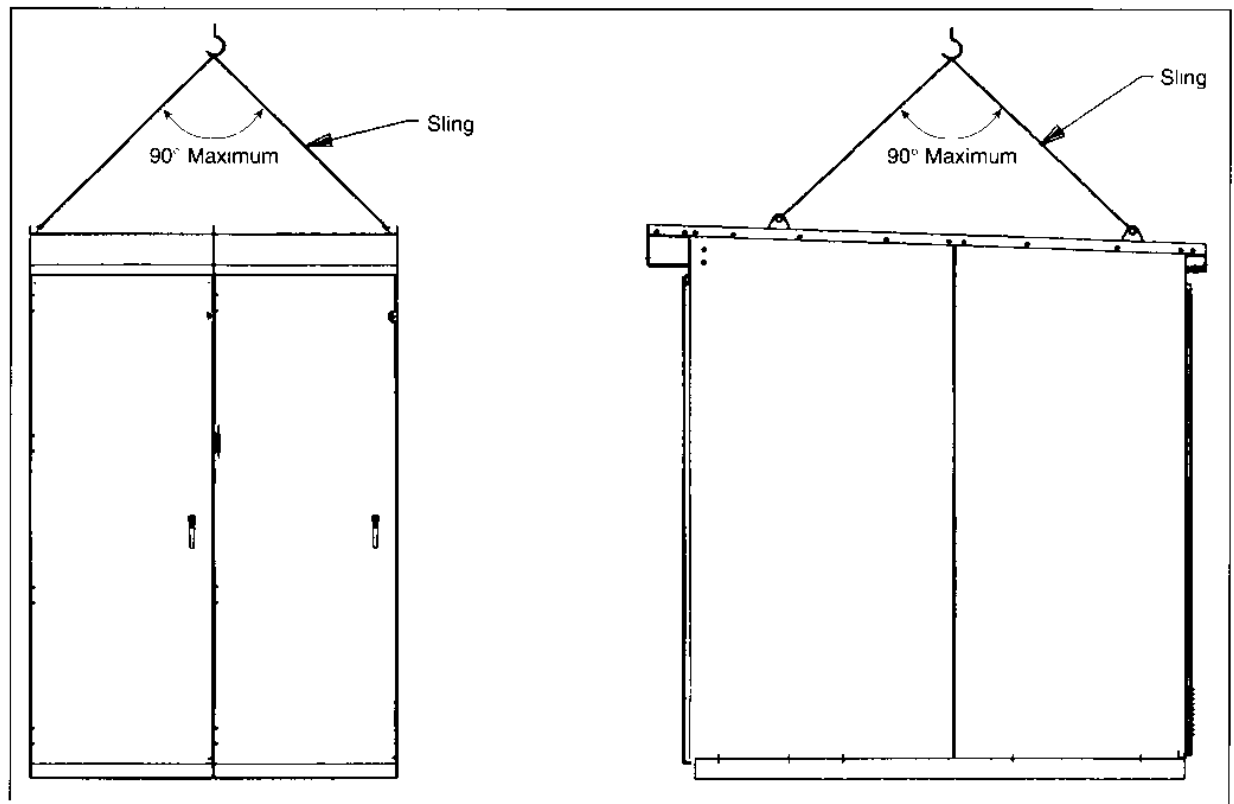


Figure 2: Lifting method

## Storage

The switchgear shipping sections are packaged to ensure protection during shipment. **This packaging is not suitable for storage.** If the switchgear must be stored, store it indoors or under a shelter protected from rain, snow, dirt, and dust.

Unsatisfactory storage conditions can damage the bussing and sensitive electrical and/or electronic components. Inspect the gear regularly during storage to prevent serious damage. When storing, consider the following:

**Supporting Foundation**—To prevent distortion, the storage foundation must be reasonably true and flat. If the base is other than concrete, elevate the gear above ground level on a minimum of three supporting beams so ventilation can minimize the effects of ground moisture.

**Ventilation**—To prevent moisture condensation, ventilating air must be provided through and around the switchgear assembly. Switchgear vents must be open for free air circulation.

**Heat**—If storage time exceeds one week, and the storage building is not heated or climatic conditions (extreme temperature changes, humidity, rain, etc.) support condensation, the switchgear sections must be heated. To do so, connect the internal space heaters (see wiring diagrams) or place heaters inside the front and rear of the switchgear.

## SECTION 4—FOUNDATION

### Requirements

The non-walk-in enclosure is designed for installation on a concrete pad, *not* for pier mounting. The pad must be flat and level to prevent distortion and ensure proper alignment of the gear. The pad must be leveled to 1/8" per square yard.

The concrete pad should extend 72" in front of the switchgear for movement of the breaker truck. The rear of the pad should extend a minimum of 12" to allow space for the anchor bolts.

Figure 3 (below) illustrates a typical foundation. Refer to the actual factory order drawings before using the typical foundation specifications.

Conduits should be stubbed a maximum of one inch above floor steel. Conduit placement should be very accurate to ensure no mechanical interference with the switchgear floor steel.

Avoid continuous loops of reinforcing rod or structural steel around any single conductor three-phase power circuit.

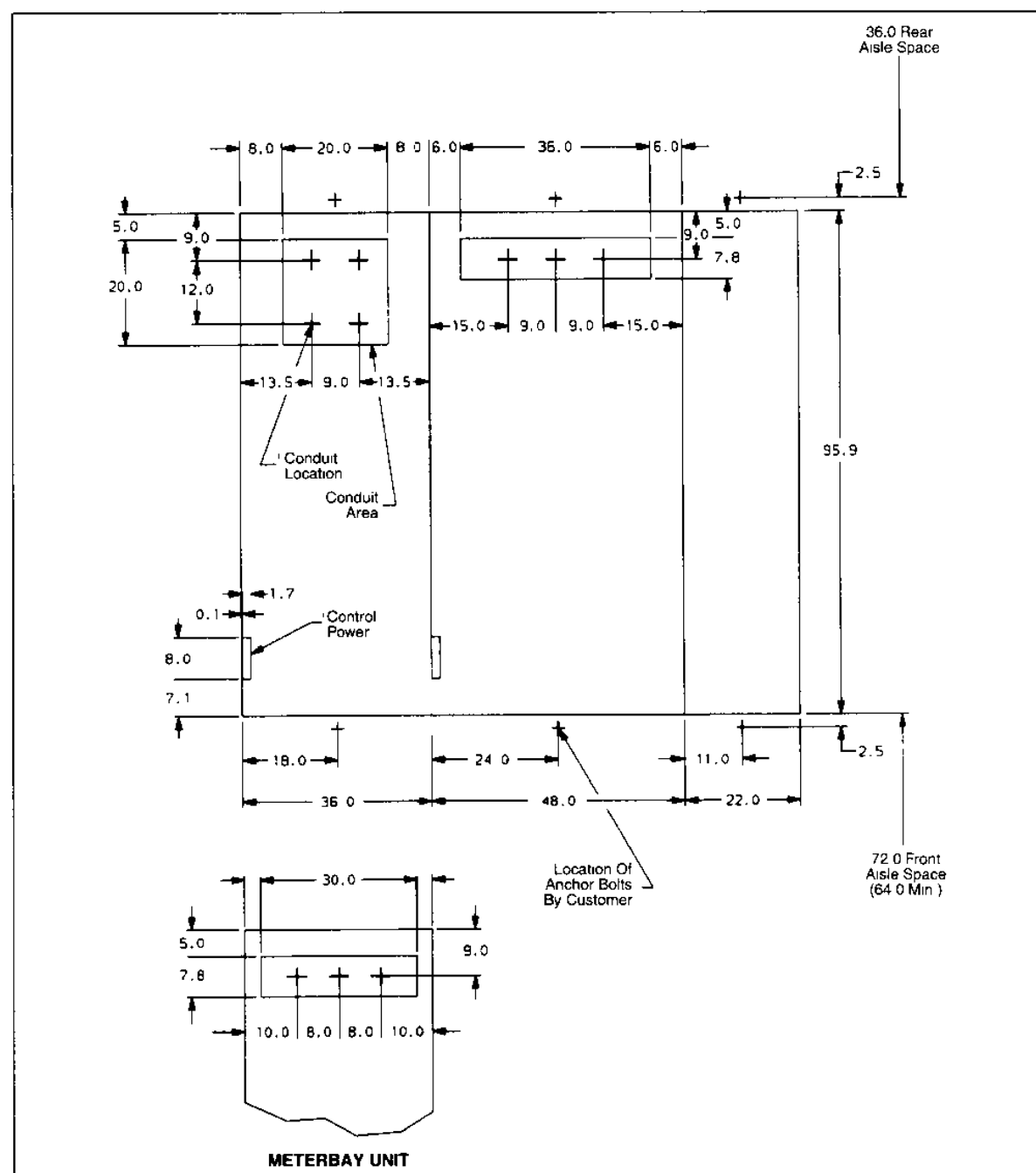


Figure 3: Typical foundation

## SECTION 5—INSTALLATION

Square D strongly recommends that the foundation be ready to receive the non-walk-in switchgear when it arrives. Sweep the pad before installing any sections.

**The switchgear is designed to be *unloaded with a crane* by the lifting lugs on the roof. No spreader bars are required. If another unloading method is necessary, contact Square D to make special arrangements.**

When more than two shipping sections are involved, carefully measure the conduit spacing, comparing it with the customer drawings. Cumulative error in conduit location may require starting with center shipping sections and working toward either end.

Level each section, using steel shims if necessary, before installing the next. After leveling a section, bolt it to the previously installed section before proceeding. If the sections do not fit snugly together, remove the most recently placed section with the crane. Look for and remove any obstructions and try again.

**Before installing subsequent shipping sections, verify that the factory-installed gasket attached to one side of the shipping section is in place. If damaged or missing, repair it using the gasket provided. Make sure there is no gap between splices.**

After all switchgear sections are in place, attach the roof caps, using 1/4" thread-forming screws.

Installation (cont.)

**IMPORTANT:** Remove lifting lugs *one at a time* from the switchgear and plug holes with the factory-supplied 1/2" bolts and sealwashers furnished with each shipping section. Make sure that all 1/2" bolts and sealwashers are in place; they not only seal, but hold the roof to the switchgear.

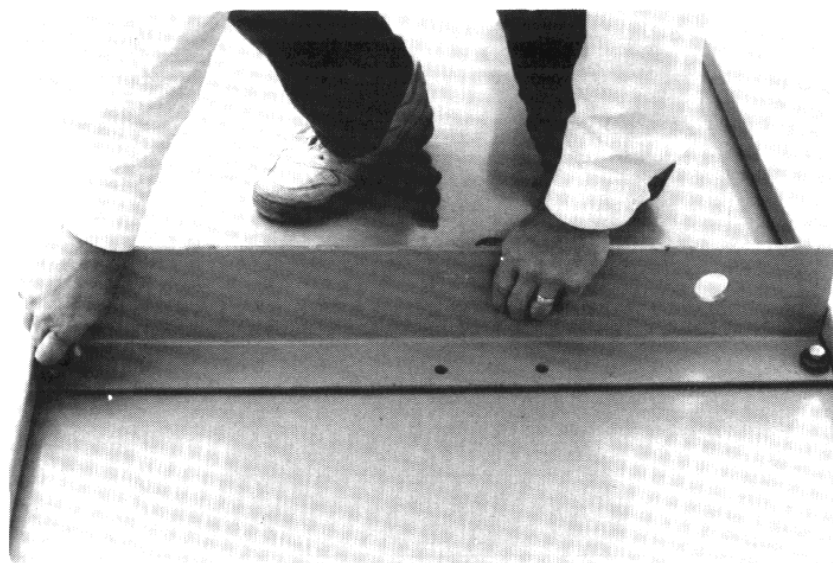


Figure 4: Removing large lifting lugs

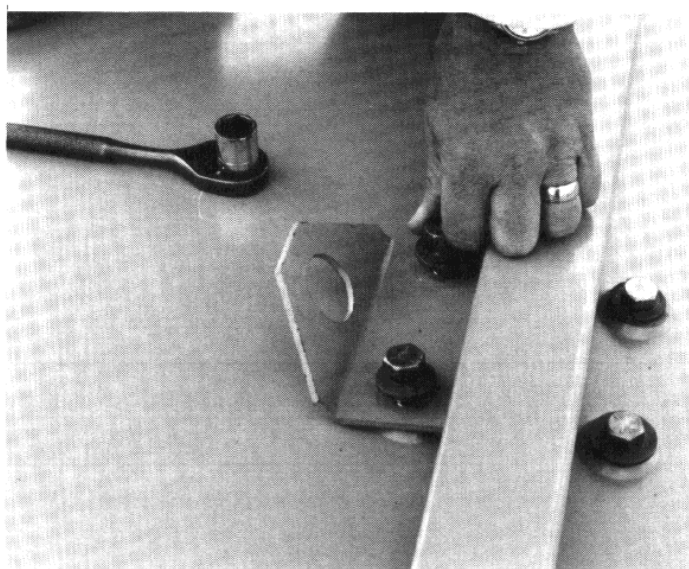


Figure 5: Removing small lifting lugs

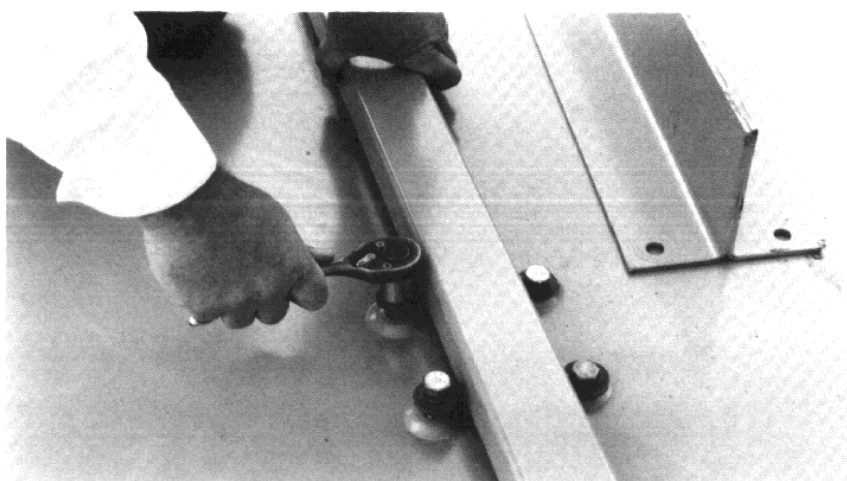


Figure 6: Plugging holes with bolts/sealwashers

## SECTION 6—INSPECTION AND MAINTENANCE

Inspection and maintenance for the non-walk-in enclosure should be performed on the basis of environmental conditions and experience. Always inspect immediately after severe storms, heavy rain, or exposure to sand. Although regular maintenance may depend on downtime, inspect the equipment on a regular basis.

The inspection for the switchgear is outlined in detail in instruction bulletin 6055-10. The following instructions apply only to the non-walk-in enclosure.

Air filter replacement is the only regular maintenance required. Replace the filters every six months or as applicable. Table 1 (below) lists correct filter applications.

<b>Filter<sup>①</sup> Location</b>	<b>Bay Width</b>	<b>Square D Part No.</b>	<b>Size (Inches)</b>
Rear Door	22	46005-679-01	11.0 x 13.0 (2)
	36	46005-243-01	11.0 x 19.5
	48	46005-243-01	11.0 x 19.5
Front Eaves	22	46005-679-02	7.3 x 16.5
	36	46005-243-02	7.3 x 30.5
	48	46005-418-01	7.3 x 46.0
Rear Eaves	22	46005-679-03	3.3 x 20.0
	36	46005-243-03	3.3 x 34.0
	48	46005-418-02	3.3 x 46.0

① Filter material is 1/2" thick rubberized hair filter pad (Paratex).

Inspect the following at least every six months or as applicable:

- Check for possible leaks, especially after a storm, in the front and in each cable compartment. Also check the seeping holes in the cable compartment doors to ensure they are not clogged.
- Check the thermostat settings. Ensure that space heaters in the switchgear are operating.

Inspection And Maintenance (cont.)

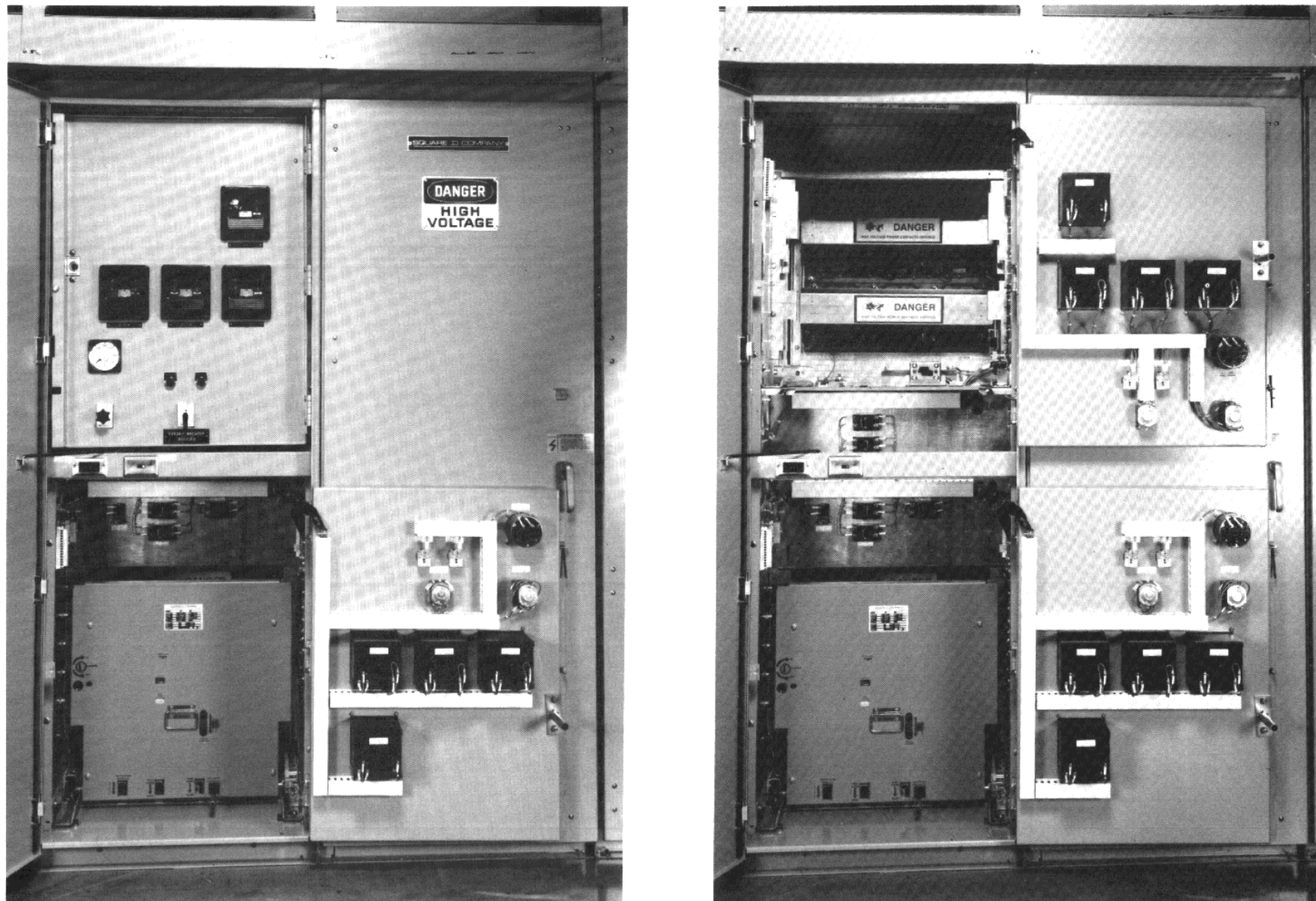


Figure 7: Inner doors opened 180° and latched to outer door of the next bay

## SECTION 7—STANDARD COMPONENTS AND PARTS

The following components and parts are shipped standard with each unit:

- One or two tubes of caulk to be used only to seal cracks found after final installation
- 1/2" gasket for repair if the unit gasket is damaged during shipment
- One set per shipping section of four 1/2" bolts and seal washers for replacing bolts which hold the lifting lugs on the roof

<b>NOTE</b>
See instruction bulletin 6055-10 for components shipped with the indoor switchgear.

SECTION 8—OUTLINES

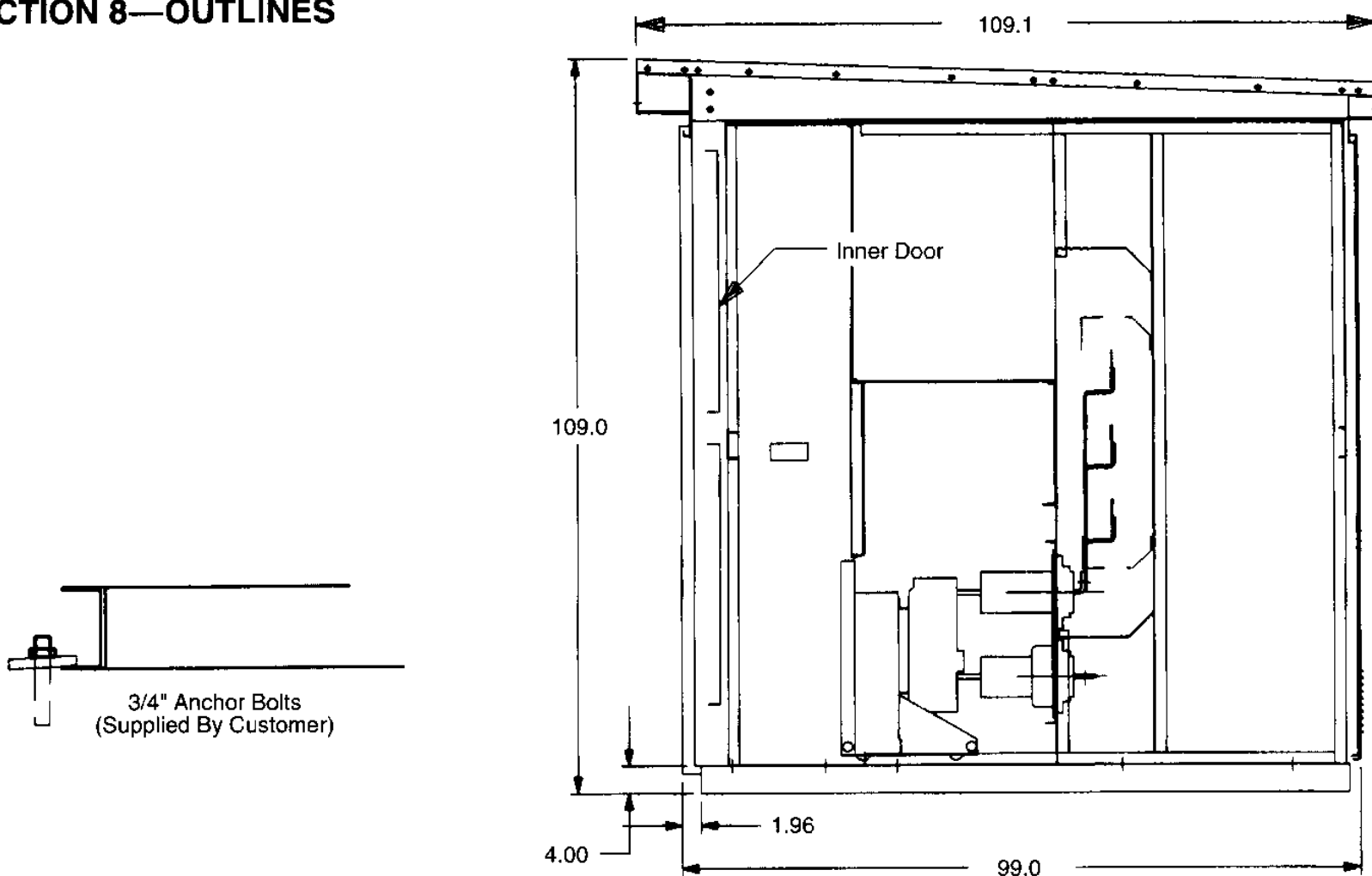


Figure 8: Side view

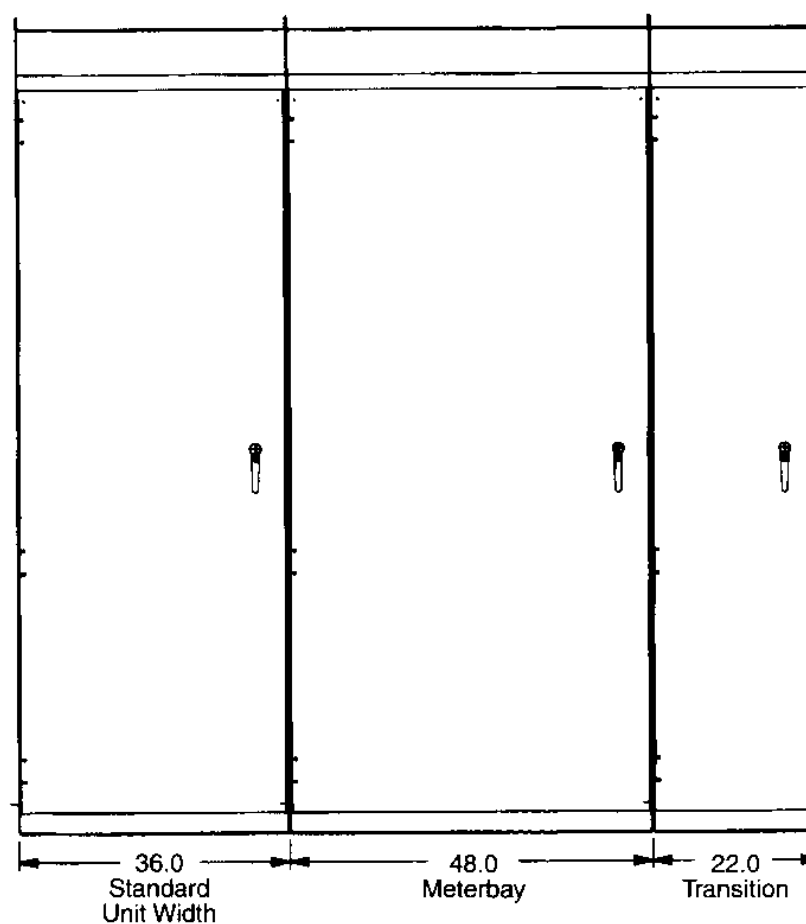


Figure 9: Front view

Square D Company  
330 Weakley Road  
Smyrna, TN 37167 USA

Order No. 6055IM9204

LG 1M 10/92



SQUARE D

Printed in U.S.A.