# **SECTION 1— INTRODUCTION**

This bulletin contains instructions for receiving, handling, storage, installation, operation and maintenance for the Type VR1200/2000 A, 27kV Electrically Operated Ground and Test (G&T) devices manufactured by Square D.

This device is an auxiliary device for use with 27 kV Masterclad<sup>®</sup> switchgear during initial installation and normal maintenance. The device provides a convenient means for grounding the load cables or the bus. It can be used to measure resistance and to perform phasing operations. Also, the device can apply power from an external source for a high potential test or for fault location.

The G&T device can be used with switchgear assemblies with symmetrical short-circuit rating up to 40 kA.

This device has been designed and tested per ANSI/IEEE C37.20.6 - Standard for Medium-Voltage Ground and Test Devices Used in Enclosures.

The following components (see Figure 1) are furnished with the G&T device:

- · control power cord
- · remote control cable
- high voltage test plugs
- · interlock keys, including spares

Figure 1: Basic G&T Device



#### **PRODUCT OVERVIEW**

This section contains a basic overview of the workings of the electric G&T device and the identification of certain components. The electric G&T device consists of a basic circuit breaker frame which engages the switchgear racking mechanism. The 1200/2000 A device can be used for either the upper or lower circuit breaker compartment. This product is intended for use with only Masterclad series switchgear manufactured by Square D.

## **Changing Contact Position**

The 1200/2000 A reversible stabs (see Figure 2) can be removed and changed to the upper or lower position. Two bolts per phase must be removed to rotate the stabs.

Figure 2: Sectional Side View of 1200/2000 A Device

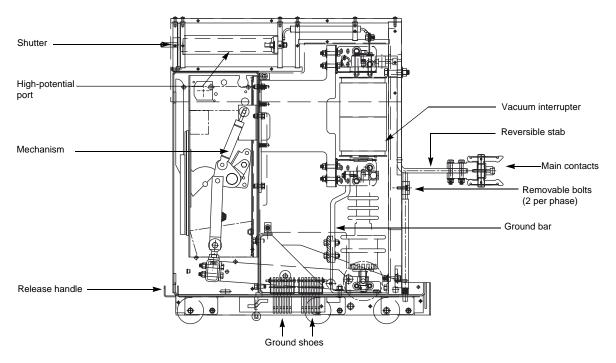
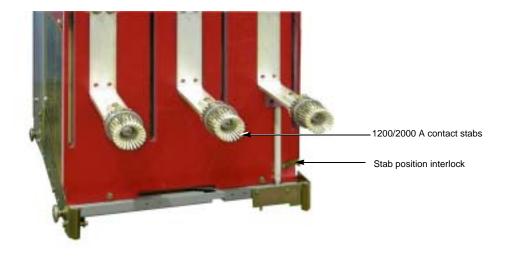


Figure 3: 1200/2000 A Stabs in Lower Position



#### **SECTION 1—INTRODUCTION**

This bulletin provides installation, removal, and maintenance instructions for the Type VR dummy breaker manufactured by Square D Company. The Type VR dummy breaker is a horizontal drawout auxiliary device designed for use with MASTERCLAD metal-clad switchgear.

The Type VR dummy breaker consists of a Type VR circuit breaker frame with the same dimensions, main contacts, and wheels as the standard VR circuit breaker. Refer to instruction bulletin 6055-30 for information about the MASTERCLAD metal-clad switchgear or instruction bulletin 6055-31 for information about the Type VR vacuum circuit breaker.

The dummy breaker provides an economical means to connect line and load terminations in MASTERCLAD switchgear. However, it does not have the interrupting or closing capability of a real circuit breaker. It is often used to temporarily connect a circuit or bus section to the main bus.

The Type VR dummy breaker is available in two current ratings—1200 and 2000 amperes. The specific rating is printed on the nameplate. Both units can be used in  $4.76~\rm kV$  through  $15.0~\rm kV$  MASTERCLAD switchgear.

The main contacts (figure 1) connect the dummy breaker to the primary stabs located in the switchgear. Molded pole housings support the conductor bars and separate them from the grounded frame. Shorting bars are connected to the conductor bars, forming a current path between the line and load terminations of the circuit breaker cell. Figure 1 depicts the parts of the dummy breaker.



Figure 1: Dummy breaker, front and rear view

## **SECTION 7—OUTLINES**

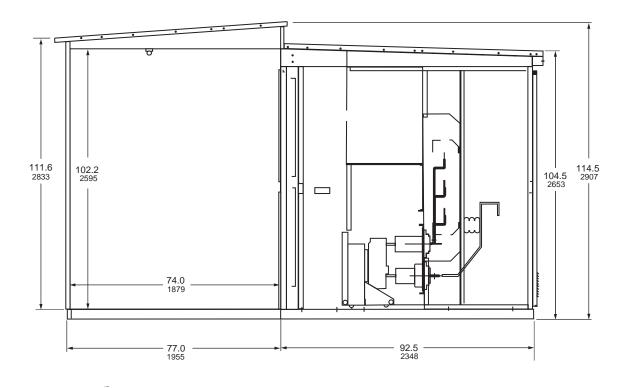


Figure 30: Outline of Single Aisle Walk-in

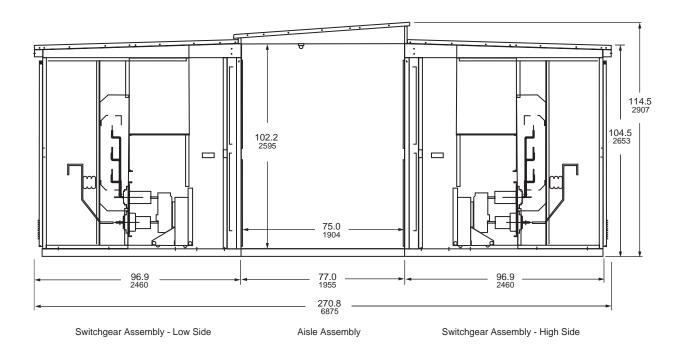


Figure 31: Outline of Common Aisle Walk-in