

Instruction Bulletin

6055-60
June 2003
Smyrna, TN, USA

Type VR Electrically Operated 6-Port Ground And Test Device For Use with MASTERCLAD® Switchgear 4.76–15 kV, 1200–2000 A, Up to 49 kA Short Circuit Current Rating

Class 6055

Retain for future use.



SQUARE D

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 bulletin or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.



The addition of either symbol to a “Danger” or “Warning” safety label indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

⚠ DANGER

DANGER indicates an imminently hazardous situation which, if not avoided, **will result** in death or serious injury.

⚠ WARNING

WARNING indicates a potentially hazardous situation which, if not avoided, **can result** in death or serious injury.

⚠ CAUTION

CAUTION indicates a potentially hazardous situation which, if not avoided, **can result** in minor or moderate injury.

CAUTION

CAUTION, used without the safety alert symbol, indicates a potentially hazardous situation which, if not avoided, **can result** in property damage.

NOTE: Provides additional information to clarify or simplify a procedure.

PLEASE NOTE

Electrical equipment should be installed, operated, serviced, and maintained only by qualified electrical personnel. This document is not intended as an instruction manual for untrained persons. No responsibility is assumed by Square D for any consequences arising out of the use of this manual.

CONTENTS

SECTION 1—INTRODUCTION 5
Description 6
 General 6
 Shutters 6
 Remote Control Cable 6
Interlocks 7
 Permissive Switch 7
 Permissive Switch Padlock Provision 7
 Emergency Trip/OPEN (O) Pushbutton 7
Schematic Diagram 9
SECTION 2—SAFETY PRECAUTIONS 10
SECTION 3—RECEIVING, HANDLING, AND STORAGE 11
Receiving 11
Handling 11
Storage 11
SECTION 4—INSTALLATION 12
Pre-Installation Procedures 12
 Hi-Pot (Dielectric) Test 12
Preparing the G&T for Installation 13
Installing the G&T Device into the Lower Circuit Breaker
Compartment TEST/DISCONNECT Position 13
Racking the G&T Device into the CONNECTED Position 15
SECTION 5—OPERATION & REMOVAL 16
Using the G&T Device as a Grounding Unit 16
Preparing the G&T Device to be Racked Out of
the Connected Position After Grounding 16
Using the G&T Device as a Test Unit 17
Preparing the G&T Device to be Racked Out of
the Connected Position After Testing 17
Racking the G&T Device Out of the CONNECTED Position After
Grounding or Testing 17
SECTION 6—MAINTENANCE 19
Mechanism Test 19
Hi-Pot (Dielectric) Test 19
MAINTENANCE LOG 20

FIGURES

Figure 1:	6-Port Ground and Test Device (Front View)	5
Figure 2:	6-Port Ground and Test Device (Rear View)	6
Figure 3:	Primary Test Plug Assembly (upper terminal shown—lower terminal is similar).	8
Figure 4:	6-Port Ground and Test Unit—Sectional View (Operating Mechanism not shown) 8	
Figure 5:	Voltage Path Diagram.	8
Figure 6:	Typical Schematic Diagram	9
Figure 7:	Handling Provisions	11
Figure 8:	Racking Position Indicator (TEST/DISCONNECT Position) 13	
Figure 9:	MASTERCLAD Switchgear Circuit Breaker Compartment	14
Figure 10:	Test and Connected Position Arrows	14
Figure 11:	Racking Handle Engaged onto Racking Shaft with Circuit Breaker in the TEST/DISCONNECT Position	15

SECTION 1—INTRODUCTION

This bulletin provides initial device preparation, preliminary checks and operation, and maintenance instructions for the electrically operated 6-port G&T device. This device is an auxiliary device for use with 4.76 kV to 15.0 kV MASTERCLAD® switchgear during initial installation and maintenance. It provides a convenient means for grounding cables/circuits when needed. It also extends the primary terminals of the switchgear through receptacles which are covered with an interlocked shutter to the front of the device, making them accessible to the operator for testing.

The G&T device can be used with switchgear assemblies of up to 49 kA symmetrical short circuit current rating. It is designed for use in the lower circuit breaker compartment; the main contacts fit both the 1200 A and 2000 A circuit breaker compartment contacts. The device operates on 125 Vdc control power

This G&T 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:

- the basic G&T device with 1200A/2000A main contacts
- 3 high voltage test plugs
- remote control cord

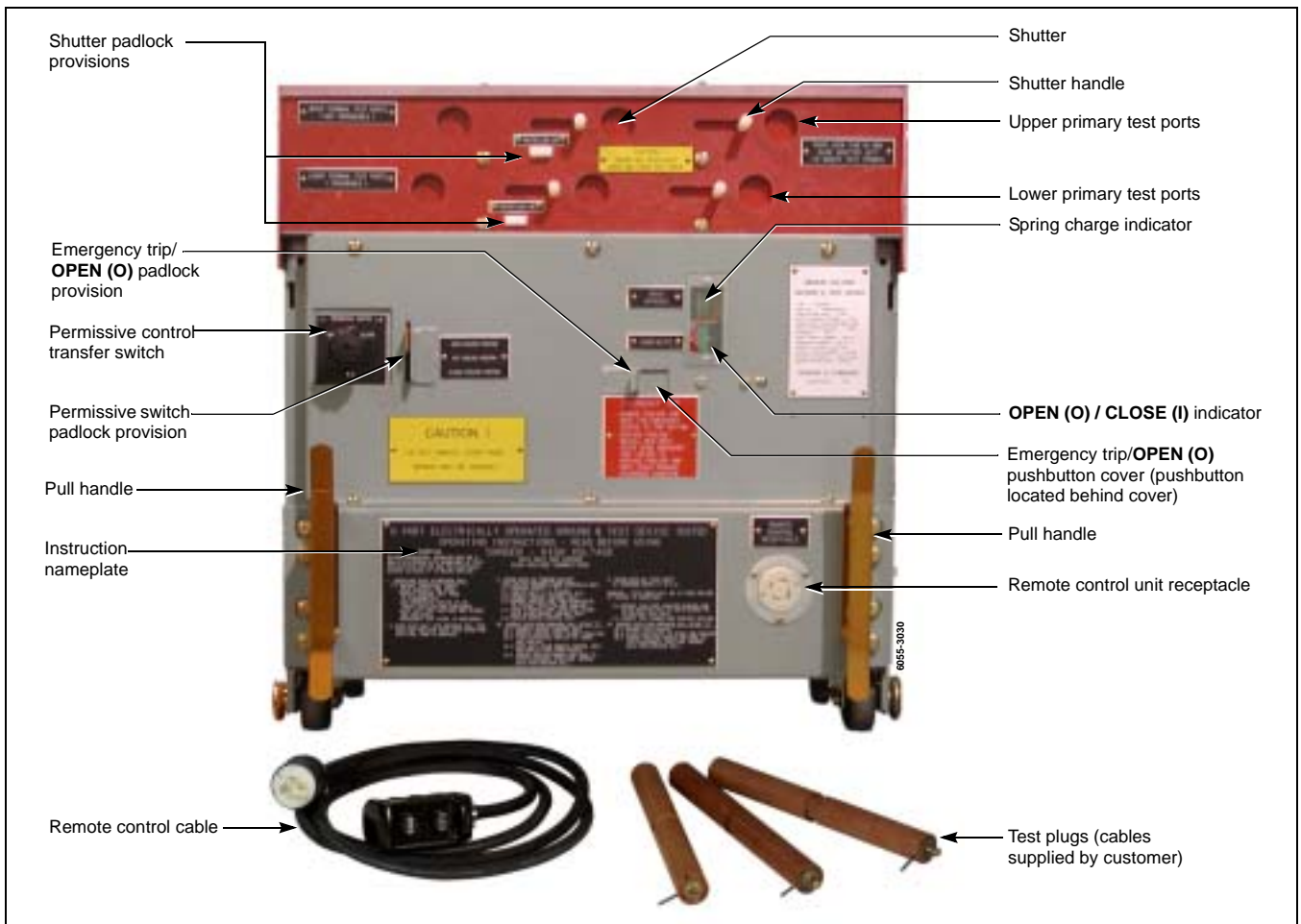


Figure 1: 6-Port Ground and Test Device (Front View)

Description

General

This G&T device is designed to be used to ground the lower terminals only. The upper primary contacts are rated for testing and metering. The lower primary contacts are fully rated for testing and grounding.

The three lower primary contacts of the device are connected to each other through individual vacuum bottles to a solid copper bar, and to the ground contacts. To use this device for power frequency withstand (hi-pot) or other tests, all phases are brought to the front and connected to the test ports. A connector test plug with cable attached can be inserted in these ports for tests or measurements.

NOTE: The cable is supplied by the customer.

Shutters

Test port shutters (see Figure 1) are located over the upper and lower primary ports. The upper and lower shutters can be opened independently of each other by pushing the handles to the left to insert test plugs or for metering. There is a padlock provision to lock the test port shutters in the closed position. Use a padlock with a 1/4 in. (.25 in./6 mm) maximum diameter shackle.

Remote Control Cable

A remote control cable with **CLOSE (I)** and **OPEN (O)** push buttons is furnished for operating the device from a distance.

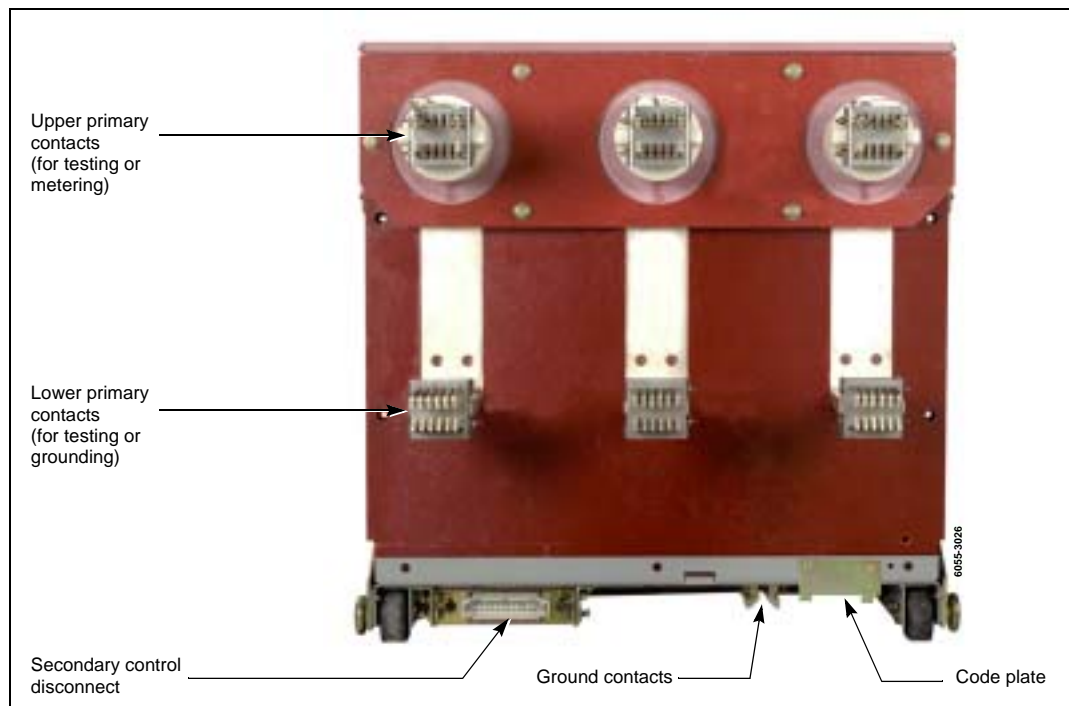


Figure 2: 6-Port Ground and Test Device (Rear View)

Interlocks

Interlock brackets are provided in circuit breaker compartments that do not require a G&T device. Refer to the switchgear customer order drawings for interlock details.

Permissive Switch

A three-position permissive control transfer switch (see Figure 1 on page 5, Figure 4 on page 8, and Figure 6 on page 9) is located on the front of the device. The three positions are:

Close—The circuit to the stored energy mechanism is complete, the open circuit is open, device cannot be electrically opened.

Off—The close and open circuits are open, device cannot be electrically opened or closed.

Open—The open circuit is complete, the close circuit is open, and the open mechanism is free to operate, device cannot be electrically closed.

Permissive Switch Padlock Provision

The G&T device should only be operated using the remote control unit. A permissive switch padlock provision is located on the front of the device (see Figure 1 on page 5 and Figure 4 on page 8) and should be used to padlock the device in either the OPEN, OFF or CLOSED position. Use padlocks with a 3/8 in. (.375 in./10 mm) maximum diameter shackle.

Emergency Trip/**OPEN (O)** Pushbutton

This pushbutton is provided to mechanically trip/open the device in the event of an emergency, i.e power loss to remote control or device secondary. Opening the device will unground the system.

⚠ WARNING

HAZARD OF ELECTRIC SHOCK BURN OR EXPLOSION

- Emergency trip/open pushbutton cover should always remain padlocked closed and the block rivet in place. Only remove the padlock and rivet to mechanically trip/open the G&T device in an emergency situation (opening the device will unground the system).
- Always replace the padlock and rivet.

Failure to follow this instruction can result in death, serious injury or equipment damage.

The pushbutton is located behind the emergency trip/**OPEN (O)** pushbutton cover. The cover blocks access to the pushbutton. The device is shipped with a rivet installed to prevent the pushbutton cover from being opened. A padlock provision allows the cover to be padlocked closed for additional security. Use a padlock with a 5/16 in. (8 mm) max. diameter shackle.

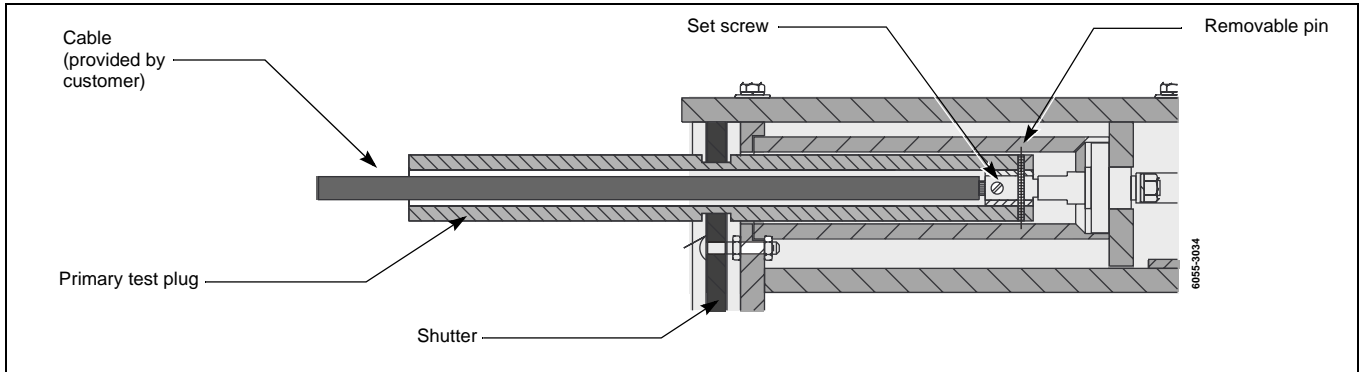


Figure 3: Primary Test Plug Assembly (upper terminal shown—lower terminal is similar)

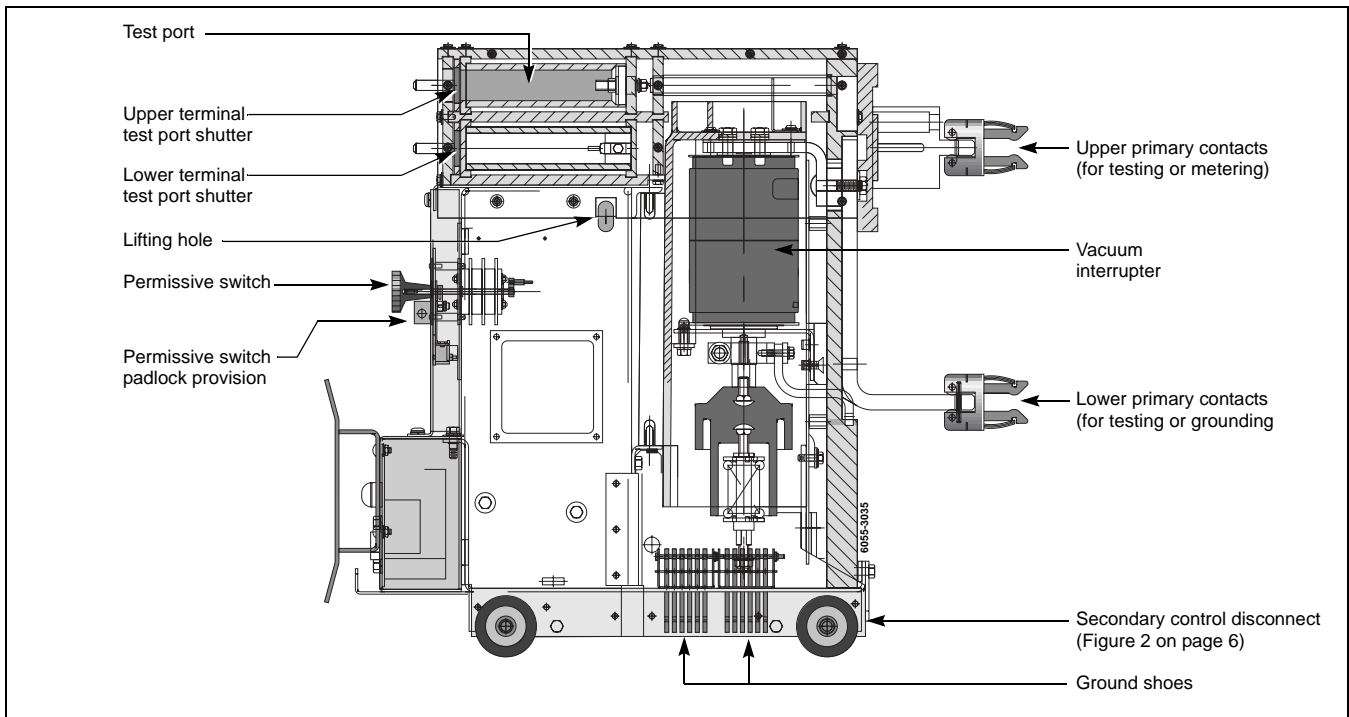


Figure 4: 6-Port Ground and Test Unit—Sectional View (Operating Mechanism not shown)

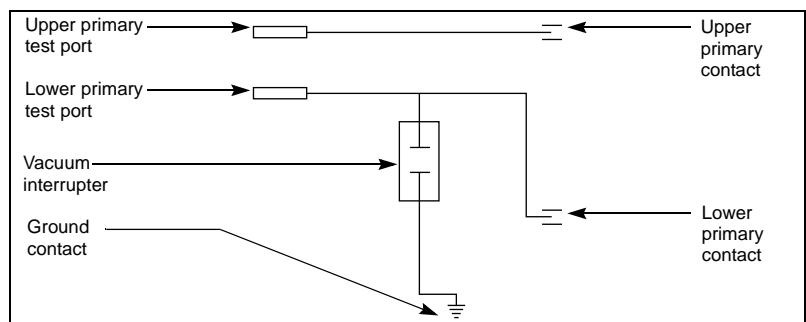


Figure 5: Voltage Path Diagram

Schematic Diagram

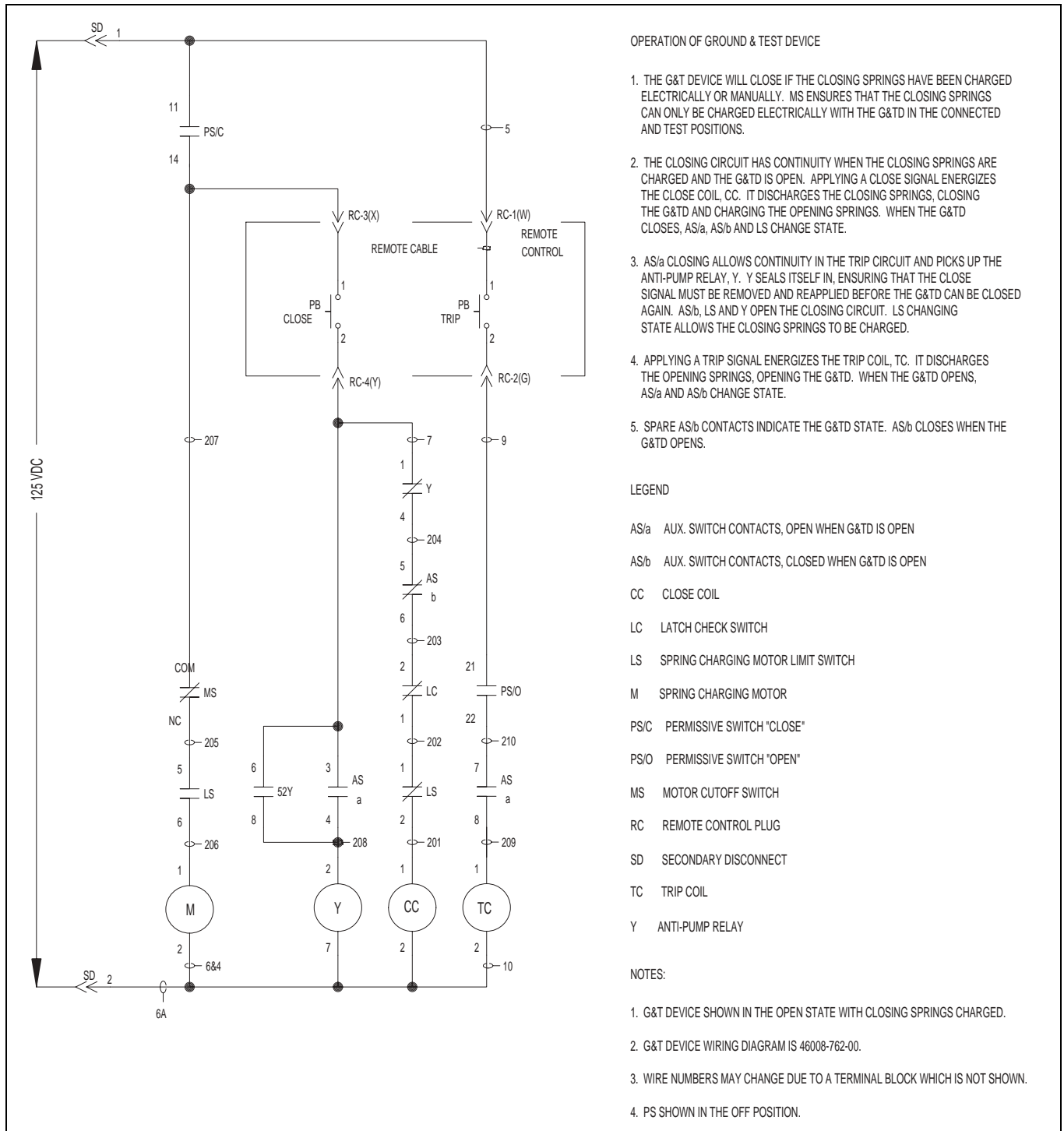


Figure 6: Typical Schematic Diagram

SECTION 2—SAFETY PRECAUTIONS

This chapter contains important safety precautions that must be followed before attempting to install, service, or maintain electrical equipment. Carefully read and follow the safety precautions outlined below.

⚠ DANGER

HAZARD OF ELECTRIC SHOCK, BURN, OR EXPLOSION.

- Only qualified personnel familiar with medium voltage equipment are to perform work described in this set of instructions. Workers must understand the hazards involved in working with or near medium voltage circuits.
- Perform such work only after reading and understanding all of the instructions in this bulletin.
- Turn OFF all power before working on or inside equipment.
- Always use a properly rated voltage sensing device to confirm that the power is off.
- Before performing visual inspections, tests, or maintenance on this equipment, disconnect all sources of electric power. Assume all circuits are live until they are completely de-energized, tested, grounded, and tagged. Pay particular attention to the design of the power system. Consider all sources of power, including the possibility of backfeeding.
- Handle this equipment carefully and install, operate, and maintain it correctly in order for it to function properly. Neglecting fundamental installation and maintenance requirements may lead to personal injury, as well as damage to electrical equipment or other property.
- Be aware of potential hazards, wear personal protective equipment, and take adequate safety precautions.
- Do not make any modifications to the equipment or operate the system with the interlocks removed. Contact your local Square D representative for additional instructions if the equipment does not function as described in this manual.
- Carefully inspect your work area and remove any tools and objects left inside the equipment.
- Replace all devices, doors, and covers before turning on the power to this equipment.
- All instructions in this manual are written with the assumption that the customer has taken these measures before performing maintenance or testing.

Failure to follow these instructions will result in death or serious injury.

SECTION 3—RECEIVING, HANDLING, AND STORAGE

Receiving

The 6-port G&T is shipped on a pallet. Do NOT stack the G&Ts.

CAUTION

HAZARD OF EQUIPMENT DAMAGE.

DO NOT STACK G&Ts. The G&Ts are not designed to support the weight of other devices.

Failure to follow this instruction can result equipment damage.

Upon receipt, check the packing list against the equipment received and verify the order and shipment are complete. Claims for shortages or errors must be made in writing to Square D within 60 days after delivery. Failure to give such notice will constitute unqualified acceptance and a waiver of all such claims by the purchaser.

Immediately inspect the equipment for any damage which may have occurred in transit. If damage is found or suspected, file a claim with the carrier immediately and notify Square D. Delivery of equipment to a carrier at any of the Square D plants or other shipping points constitutes delivery to the purchaser regardless of freight payment and title. All risk of loss or damage pass to purchaser at that time.

Refer to Square D “Terms and Conditions of Sale” for details concerning claims for equipment shortages and other errors.

Handling

CAUTION

IMPROPER LIFTING AND HANDLING OF EQUIPMENT CAN CAUSE DAMAGE

- Do not lift the G&T device by placing forklift bars directly beneath the frame.
- Do not use the main contacts as lifting handles.

Use care when uncrating and handling the G&T. Roll and maneuver the G&T device by grasping the top edge of the front cover or the pull handles (see Figure 7). Do not use the main contacts as lifting handles. When lifting the G&T device by a hoist, use the two holes in the side of the frame (see Figure 7). The G&T device should only be lifted or moved by a forklift when the equipment is on a pallet. Do not lift the G&T device by placing forklift bars directly beneath the G&T device frame.

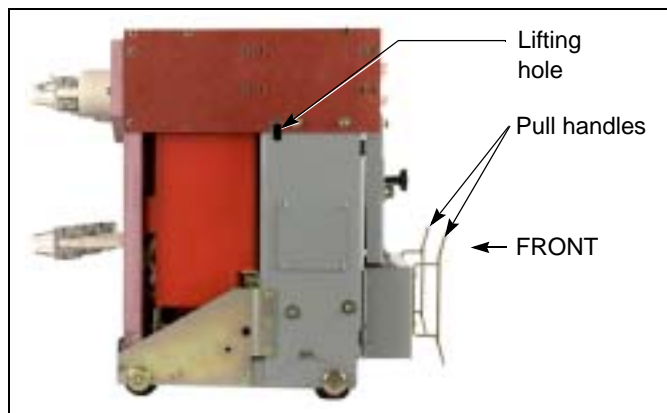


Figure 7: Handling Provisions

Storage

Keep the equipment in a clean, dry, corrosion-free area protected from damage.

SECTION 4—INSTALLATION

⚠ DANGER

HAZARD OF ELECTRICAL SHOCK, BURN, OR EXPLOSION.

- This electrically operated G&T device provides access to high voltage conductors. Use extreme care when using this device.
- This equipment must be installed and serviced only by qualified personnel.
- Remove all tools and miscellaneous items left on this device before installing the device into the circuit breaker compartment.

Failure to follow these instructions will result in death or serious injury.

Pre-Installation Procedures

Follow these steps before installing the device into the switchgear.

- Verify that all primary and grounded connections are tight.
- Lightly coat all contact surfaces and primary contact fingers with Mobil® 28 red grease (Square D part # 1615-100950).
- Clean any dust and contaminants from insulated parts.
- Remove all tools and miscellaneous items left on this device before installing the device into the circuit breaker compartment.
- Check the operation of the ground and test device. Connect both the secondary control plug and remote control cable, and operate the device a few times.

NOTE: Use a test jumper or test cabinet for control power.

Hi-Pot (Dielectric) Test

⚠ DANGER

HAZARD OF ELECTRIC SHOCK, BURN, OR EXPLOSION

When performing the hi-pot test:

- Do not exceed the voltages specified in Table 1.
- Keep all people at least six feet (1.8 m) away from the G&T device being tested.
- Discharge to ground the primary disconnects before handling. These areas can retain a static charge after a hi-pot test.

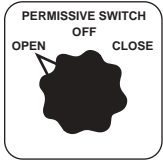
Failure to follow these instructions will cause death or serious injury.

Table 1: Hi-Pot Test Voltages

Rating	AC	DC
5 kV	14 kV	20 kV
15 kV	27 kV	38 kV

1. To ensure that the device is not damaged, perform a power frequency withstand (hi-pot) test across the open contacts of each vacuum interrupter. Gradually raise the voltage to the levels indicated in Table 1 and maintain for one minute.
2. With the ground and test device in the CLOSED (I) position, perform a phase-to-ground hi-pot test for each pole. Gradually raise the voltage to the levels indicated in Table 1 and maintain for one minute.
3. Upon completing the hi-pot test, discharge the main contact stabs to ground.
4. Verify that the device sustains the specified voltage without flashover for one minute. If the device does not sustain specified voltage without flashover for one minute, repeat the test. If satisfactory results are not achieved contact your local Square D field sales representative.

Preparing the G&T for Installation



Installing the G&T Device into the Lower Circuit Breaker Compartment TEST/DISCONNECT Position



Follow steps 1–4 before installing the G&T device into the circuit breaker compartment.

1. Check applicable drawings to identify the correct circuit to be grounded or tested.
2. Using a test cabinet or test jumper for control power, place the device in the **OPEN (O)** position by pressing the remote control **OPEN (O)** pushbutton; check the contact or open/close indicator on the front of the device (see Figure 1 on page 5).
3. Turn the permissive switch to the **OPEN** position.
4. Disconnect and remove the remote control unit from the device.

CAUTION

HAZARD OF EQUIPMENT DAMAGE

Check the customer order drawings and nameplates on the circuit breaker compartment to verify that the proper circuit breaker compartment is selected for installation of the G&T device.

Failure to follow this instruction can result in equipment damage.

Follow steps 1–5 to install the G&T device into the TEST/DISCONNECT position.

1. Verify that the proper circuit breaker compartment has been selected for G&T device installation.
2. Verify that the racking position indicator located at the bottom of the circuit breaker compartment door (see Figure 9) reads “TEST/DISCONNECT”.
3. Open the circuit breaker compartment door.

WARNING

HAZARD OF PERSONAL INJURY

Use only a MASTERCLAD lift truck manufactured by Square D to install a G&T device into switchgear on a raised pad, or into an upper circuit breaker compartment.

Failure to follow this instruction can result in death or serious injury.

4. Align the G&T device rollers with the positioning rails (see Figure 9) mounted on the side walls of the circuit breaker compartment.

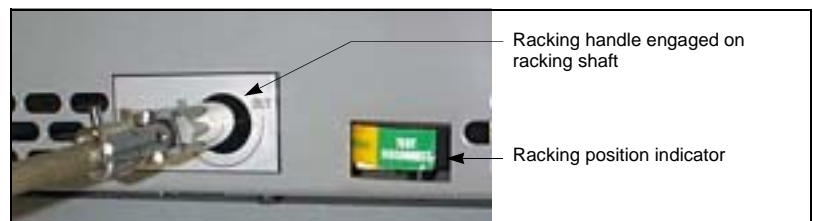


Figure 8: Racking Position Indicator (TEST/DISCONNECT Position)

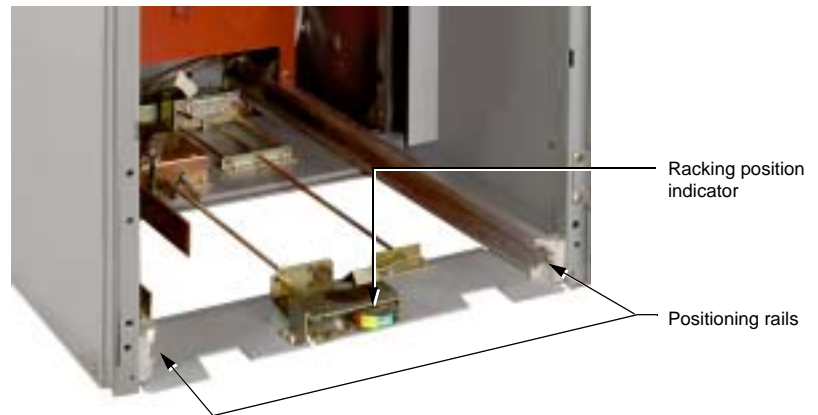


Figure 9: MASTERCLAD Switchgear Circuit Breaker Compartment

NOTE: If inserting the G&T device into switchgear mounted on a raised pad, or into an upper circuit breaker compartment, a Square D MASTERCLAD lift truck must be used. For instructions on using a MASTERCLAD lift truck, refer to Square D Bulletin No. 6055-30.

⚠ CAUTION
HAZARD OF EQUIPMENT DAMAGE
Never force the G&T device into the circuit breaker compartment. If the racking mechanism is not operating easily, inspect the equipment and the interlock status.
Failure to follow this instruction can result in equipment damage.

5. Push the G&T device into the circuit breaker compartment until the front of the device aligns with the test position arrows (see Figure 10) located on the bottom of the circuit breaker compartment.



Figure 10: Test and Connected Position Arrows

NOTE: If the G&T device does not easily roll into the circuit breaker compartment, remove the device. Repeat steps 4 and 5. If satisfactory results are not achieved, contact your Square D field sales representative.

Racking the G&T Device into the CONNECTED Position

Follow steps 1–5 to rack the G&T device into the CONNECTED position.

⚠ WARNING

HAZARD OF BODILY INJURY OR EQUIPMENT DAMAGE

Always keep the circuit breaker compartment door closed when racking the G&T device from one position to another when switchgear is energized.

Failure to follow this instruction can result in death or serious injury.

1. Close the circuit breaker compartment door.
2. Insert the Square D racking handle into the racking port and engage handle onto racking shaft (see Figure 11).



Figure 11: Racking Handle Engaged onto Racking Shaft with Circuit Breaker in the TEST/DISCONNECT Position

⚠ WARNING

HAZARD OF BODILY INJURY OR EQUIPMENT DAMAGE

Never force the G&T device into the circuit breaker compartment. If the racking mechanism is not operating easily, inspect the equipment and the interlock status.

Failure to follow this instruction can result in death or serious injury.

3. Rotate the racking handle clockwise.
4. *When the G&T device is being transported to or from the CONNECTED position, the racking position indicator will read "TRANSPORT".*

NOTE: If the G&T device does not easily rack into the circuit breaker compartment, remove the G&T device and repeat steps 1-4. If satisfactory results are not achieved, contact your Square D field sales office.

5. Continue rotating the racking handle clockwise until the racking position indicator reads "CONNECTED".

NOTE: When the racking position indicator reads "CONNECTED", the G&T device is fully racked into the circuit breaker compartment and the G&T's primary contacts are connected.

TRANSPORT

CONNECTED

SECTION 5—OPERATION & REMOVAL

Using the G&T Device as a Grounding Unit

Follow steps 1–8 to use the G&T device for grounding after installation (see “Section 4—Installation” on page 12).

1. Turn off all power to the lower primary contacts
2. Remove the padlock and open the lower primary test port shutter (see Figure 1 on page 5).
3. Verify that the lower primary test ports are de-energized using a properly rated voltage sensing device.
4. Connect the remote control unit.
5. Turn the permissive switch to the **CLOSE** position. At this point, the motor will charge the springs automatically if the springs are discharged. The device is ready to be closed.
6. From a remote location, close the G&T device.
7. Unplug the remote control unit.
8. Place the padlock into the permissive switch padlock provision (see Figure 4 on page 8) to lock the G&T device in the **CLOSED/GROUNDED** position.

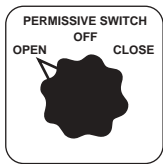
Preparing the G&T Device to be Racked Out of the Connected Position After Grounding

Follow steps 1–5 to remove the device from the lower circuit breaker compartment after using the G&T device for grounding purposes only:

1. Connect the remote control unit.
2. Remove the padlock from the permissive switch padlock provision (see Figure 4 on page 8).
3. Turn the permissive switch on the G&T device to the **OPEN** position and place the padlock in the permissive switch padlock provision.
4. Open the device using the remote control unit.
5. Unplug the remote control unit.

The device is now ready to be racked out. Proceed to “Racking the G&T Device Out of the CONNECTED Position After Grounding or Testing” on page 17

Using the G&T Device as a Test Unit



Preparing the G&T Device to be Racked Out of the Connected Position After Testing

Racking the G&T Device Out of the CONNECTED Position After Grounding or Testing

⚠ DANGER

HAZARD OF ELECTRIC SHOCK, BURN, OR EXPLOSION

Turn OFF all power supplying this equipment before using this equipment as a test unit.

Failure to follow this instruction will result in death or serious injury.

Follow steps 1–4 to use the G&T device for phasing, high potential tests, or taking measurements after installation (see “Section 4—Installation” on page 12).

1. Insert the G&T device into the lower circuit breaker compartment (see “Installing the G&T Device into the Lower Circuit Breaker Compartment TEST/DISCONNECT Position” on page 13).
2. Verify that the permissive switch is in the **OPEN** position and padlocked.
3. Remove the padlock from the desired test port and open the upper, lower, or both shutters (see Figure 1 on page 5) for phasing or insertion of the test cable for the hi-pot test or measurements.
4. Padlock the shutter not being used, if applicable.

⚠ DANGER

HAZARD OF ELECTRIC SHOCK, BURN, OR EXPLOSION

- The shutter over the six high voltage test ports are not interlocked and can be opened to give access to the 15 kV test contacts.
- Only qualified personnel, following users operation procedures, should operate this ground and test device.

Failure to follow these instructions will result in death or serious injury.

Follow these steps to remove the device from the lower circuit breaker compartment after testing is complete:

1. Remove the test cables.
2. Slide shutters to the right and padlock.

The G&T Device is now ready to be racked out. Proceed to “Racking the G&T Device Out of the CONNECTED Position After Grounding or Testing”

The G&T device can be racked out of the CONNECTED position using a racking mechanism located on the floor of the circuit breaker compartment. Follow steps 1–5 to rack the G&T device out of the CONNECTED position.

⚠ WARNING

HAZARD OF BODILY INJURY OR EQUIPMENT DAMAGE

Always keep the circuit breaker compartment door closed when racking the G&T device from one position to another when switchgear is energized.

Failure to follow this instruction can result in death or serious injury.

CONNECTED

1. Close the circuit breaker compartment door.
2. Insert the Square D racking handle into the racking port and engage handle onto racking shaft.

⚠ WARNING

HAZARD OF BODILY INJURY OR EQUIPMENT DAMAGE

Never force the G&T device out of the circuit breaker compartment. If the racking mechanism is not operating easily, inspect the equipment and the interlock status.

Failure to follow this instruction can result in death or serious injury.

TRANSPORT

3. Rotate the racking handle counterclockwise.
4. When the G&T device is being transported to or from the CONNECTED position, the racking position indicator will read "TRANSPORT".

NOTE: If the G&T device does not easily rack out of the circuit breaker compartment, check the interlock status. If satisfactory results are not achieved, contact your Square D field sales office.

5. Continue rotating the racking handle counterclockwise until the racking position indicator reads "TEST/DISCONNECT".

NOTE: When the racking position indicator reads "TEST/DISCONNECT", the G&T device is fully racked out of the circuit breaker compartment and the G&T's primary contacts are disconnected.

TEST
DISCONNECT

WARNING

HAZARD OF PERSONAL INJURY OR EQUIPMENT DAMAGE.

Use only a MASTERCLAD® Series 5 lift truck to raise or lower the G&T device if it is to be used in the lower circuit breaker compartment of switchgear mounted on a raised pad.

Failure to follow these instructions can result in death or serious injury.

NOTE: Use a MASTERCLAD® Series 5 lift truck if the G&T device is to be inserted into or removed from a switchgear that is mounted on a raised pad. This makes it necessary to lift the G&T device to insert it into or remove it from a lower circuit breaker compartment. For MASTERCLAD Series 5 lift truck instructions refer to Square D document #6055-30, MASTERCLAD Metal-Clad Indoor Switchgear.

SECTION 6—MAINTENANCE

⚠ WARNING

HAZARD OF PERSONAL INJURY OR EQUIPMENT DAMAGE

Before performing any maintenance or repair work always remove the ground and test device completely from the circuit breaker compartment.

Failure to follow this instruction can result in death or serious injury.

Proper maintenance of the ground and test device is necessary for satisfactory operation. Perform the following checks each time before the device is used:

1. Visually inspect the entire ground and test device for loose parts or connections.
2. Lightly coat the contact surfaces and primary contact fingers with grease (Mobil® 28 red grease or approved equivalent).
3. Use a clean dry cloth to ensure that the insulation is free from dust and contaminants.

If the device has been stored for a long time, perform the following tests before using the device:

- Check the operation of the ground and test device. Using a test cabinet or test jumper, connect both the secondary control plug and remote control cable, then operate the device a few times.

Mechanism Test

Hi-Pot (Dielectric) Test

⚠ DANGER

HAZARD OF ELECTRIC SHOCK, BURN, OR EXPLOSION

When performing the hi-pot test:

- Do not exceed the voltages specified in Table 2.
- Keep all people at least six feet (1.8 m) away from the G&T device compartment being tested.
- Discharge to ground the primary disconnects before handling. These areas can retain a static charge after a hi-pot test.

Failure to follow these instructions will cause death or serious injury.

Table 2: Hi-Pot Test Voltages

Rating	AC	DC
5 kV	14 kV	20 kV
15 kV	27 kV	38 kV

1. To ensure that the device is not damaged, perform a power frequency withstand (hi-pot) test across the open contacts of each vacuum interrupter. Gradually raise the voltage to the levels indicated in Table 2 and maintain for one minute.
2. With the ground and test device in the CLOSED (I) position, perform a phase-to-ground hi-pot test for each pole. Gradually raise the voltage to the levels indicated in Table 2 and maintain for one minute.
3. Upon completing the hi-pot test, discharge the main contact stabs to ground.
4. Verify that the device sustains the specified voltage without flashover for one minute. If the device does not sustain specified voltage without flashover for one minute, repeat the test. If the device fails to sustain voltage without flashover again, contact your local Square D representative.

**Electrically Operated 6-Port Ground and Test Device, For Use with MASTERCLAD® Switchgear,
4.76–15 kV, 1200–2000 A, Up to 49 kA Short Circuit Current Rating, Class 6055**

Square D Company
330 Weakley Road
Smyrna, TN 37167
(615) 459-5026
1-888-Square D (1-888-778-2733)
www.squared.com

Electrical equipment should be serviced only by qualified electrical maintenance personnel. No responsibility is assumed by Square D for any consequences arising out of the use of this material.

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Replaces 6055-21 dated August, 1994.



California Proposition 65 Warning—Nickel Compounds and Bisphenol A (BPA)

Advertencia de la Proposición 65 de California— compuestos de níquel y Bisfenol A (BPA)

Avertissement concernant la Proposition 65 de Californie— composés de nickel et Bisphénol A (BPA)

⚠ WARNING: This product can expose you to chemicals including Nickel compounds, which are known to the State of California to cause cancer, and Bisphenol A (BPA), which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

⚠ ADVERTENCIA: Este producto puede exponerle a químicos incluyendo compuestos de níquel, que son conocidos por el Estado de California como causantes de cáncer, y Bisfenol A (BPA), que es conocido por el Estado de California como causante de defectos de nacimiento u otros daños reproductivos. Para mayor información, visite www.P65Warnings.ca.gov.

⚠ AVERTISSEMENT: Ce produit peut vous exposer à des agents chimiques, y compris composés de nickel, identifiés par l'État de Californie comme pouvant causer le cancer, et Bisphénol A (BPA) reconnus par l'État de Californie comme pouvant causer des malformations congénitales ou autres troubles de l'appareil reproducteur. Pour de plus amples informations, prière de consulter www.P65Warnings.ca.gov.

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