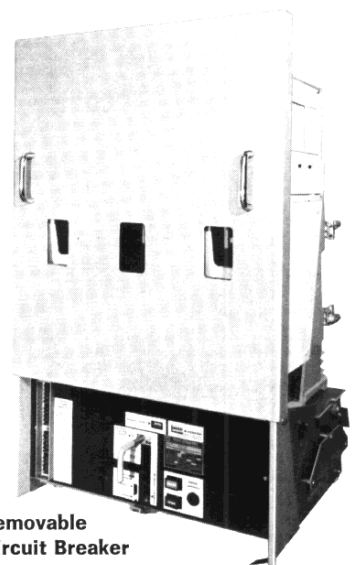


Photo 6150-756A

#### SQUARE D 5KV TEN SECTION METAL-CLAD SWITCHGEAR LINE-UP

The 5KV ten bay line-up shown here was shipped to a Sewage and Water Board Plant. Note the solid state relays mounted on the low voltage compartment door to provide phase overcurrent and ground fault protection.



Removable  
Circuit Breaker  
Element

Photo 6150-92

September, 1975



**SQUARE D NEMA 3R WALK-IN STRUCTURES**

Middletown  
Photo No. 6150-778b

### **SOLENARC DSE METAL-CLAD SWITCHGEAR**

The standard construction of SOLENARC switchgear in NEMA 3R walk-in enclosures is designed to permit the passage of two breakers side by side in the front aisle. The aisle also serves as a well-lighted working area for operating personnel. Utility receptacles are strategically located around the structure for use with portable tools.

Most enclosures are supplied with at least one ventilation intake fan which is designed to create a positive pressure inside the switchgear house. The fans are thermostatically controlled.

Ceiling mounted fluorescent lights are complete with a three way switch which will permit switching from each entry door.

**NEW LISTING**

April, 1977



**SQUARE D NEMA 3R WALK-IN STRUCTURES**

**Middletown**  
**Photo No. 6150-778d**

**SOLENARC DSE METAL-CLAD SWITCHGEAR**

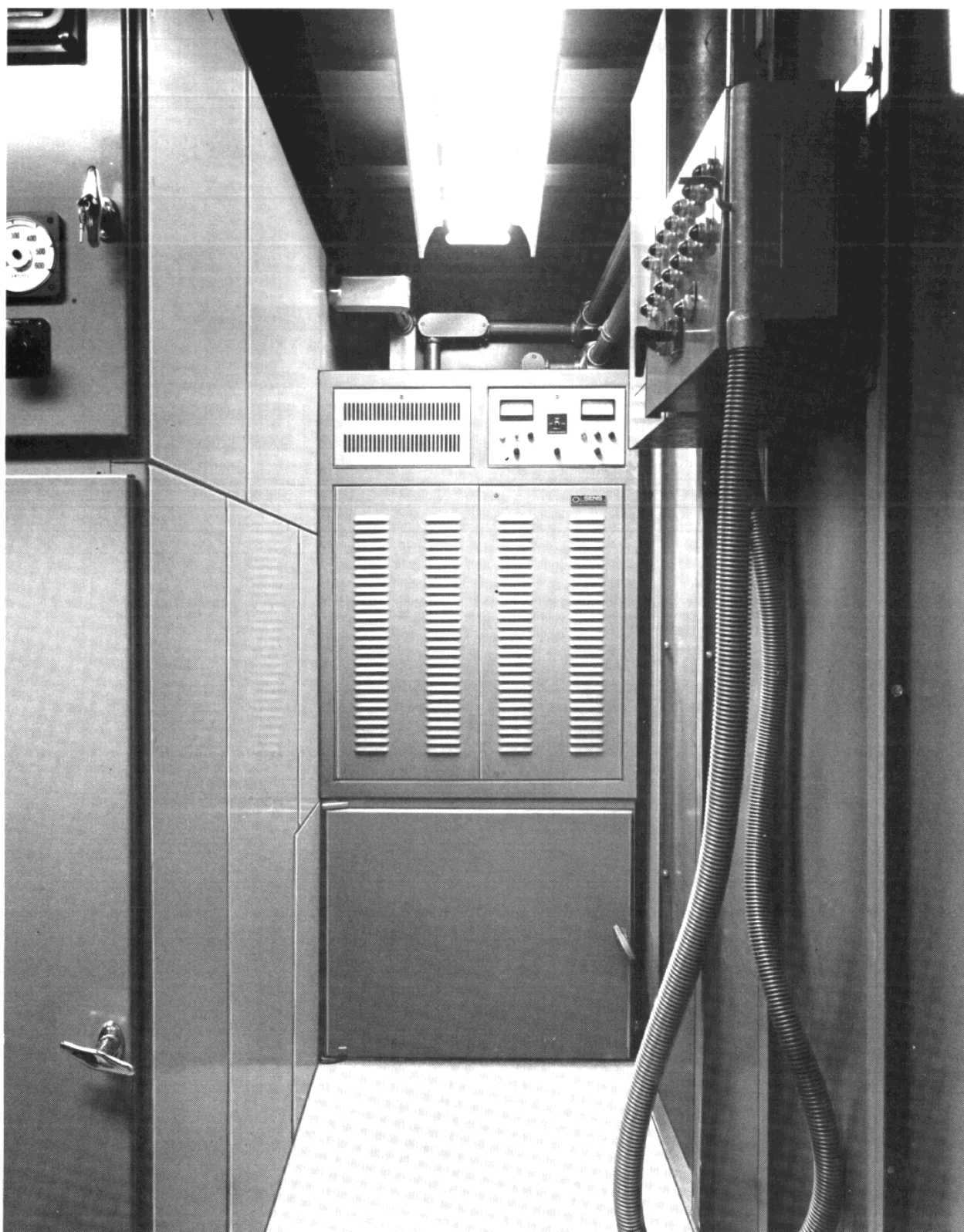
This is a typical installation showing SOLENARC switchgear in a NEMA 3R walk-in enclosure. The front aisle is illuminated by fluorescent lights. Each enclosure has a minimum of two entry doors, each equipped with panic hardware.

The enclosure is fabricated of 11 gauge zinc-coated steel to retard rusting. All vertical seams are caulked to prevent the entry of water.

**NEW LISTING**

**April, 1977**





#### **SQUARE D NEMA 3R WALK-IN STRUCTURES**

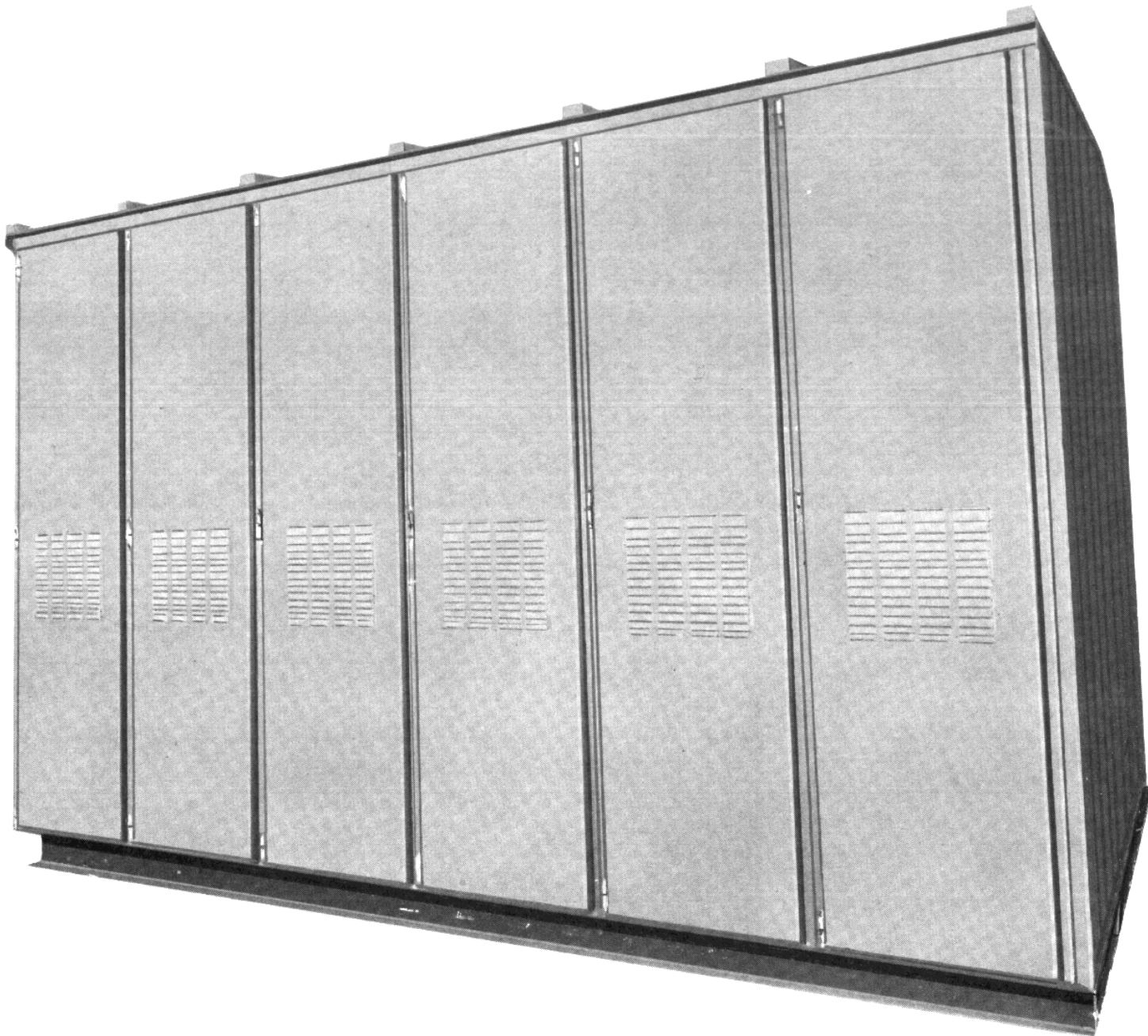
**Middletown  
Photo No. 6150-778e**

#### **SOLENARC DSE METAL-CLAD SWITCHGEAR**

NEMA 3R walk-in metal-clad switchgear houses are available with additional sections built on to the end of the assembly which can be used for auxiliary equipment. In the case of the switchgear house pictured above, the customer has ordered a console for the DC power supply. In addition, a circuit breaker test cabinet was required for testing of circuit breakers after they have been removed from service.

**NEW LISTING**

**April, 1977**

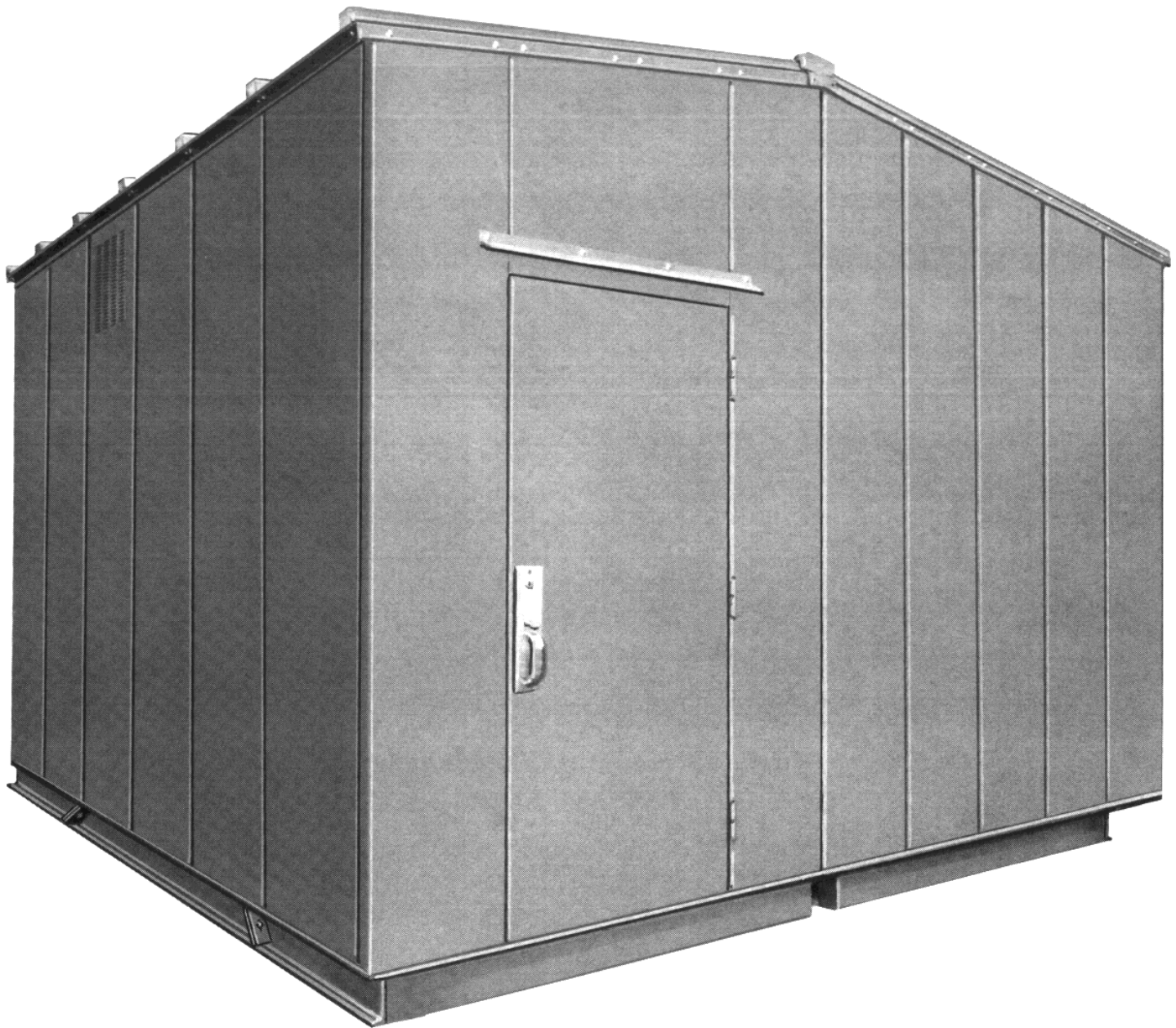


Middletown  
Photo No. 6150-7697

### **SOLENARC DSE METAL-CLAD SWITCHGEAR**

Rear view of the outdoor walk-in SOLENARC metal-clad enclosure showing the rear access doors.

September, 1976

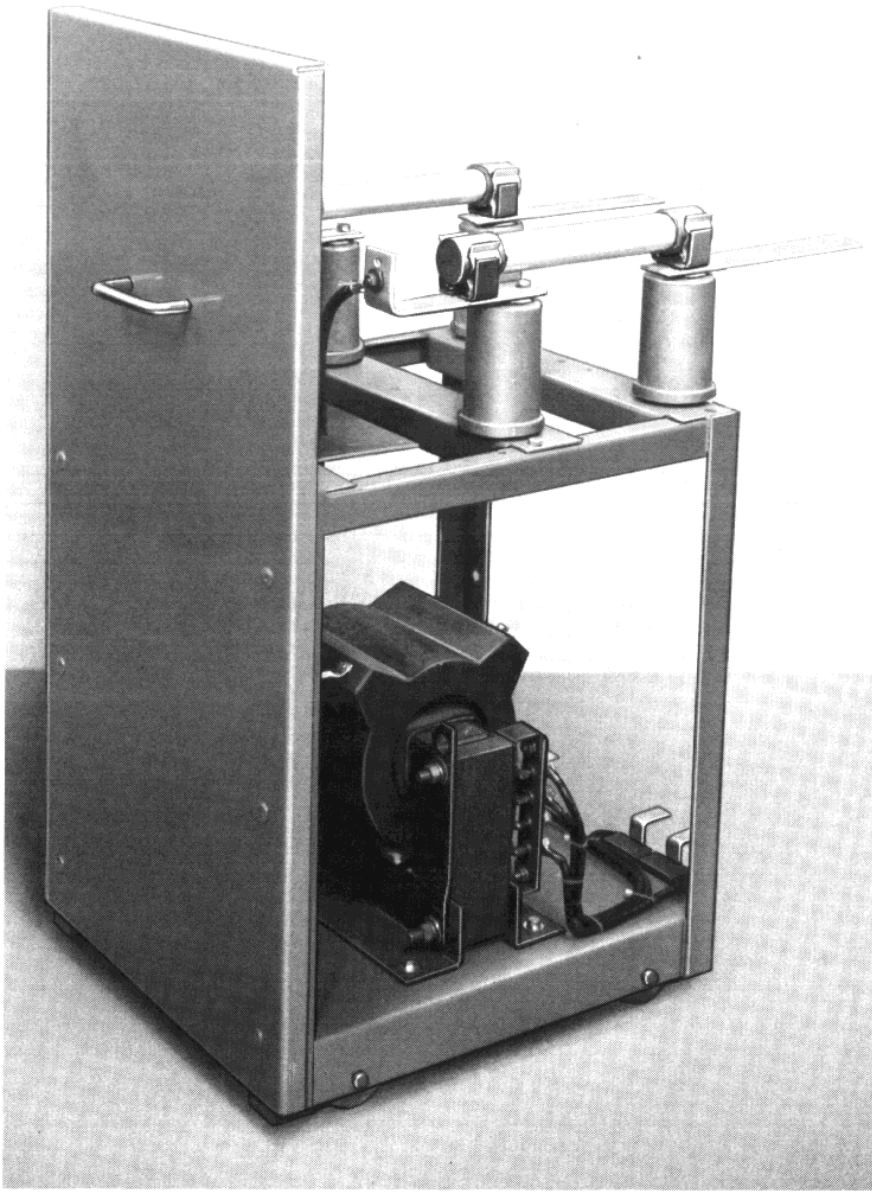


**Middletown**  
**Photo No. 6150-7698**

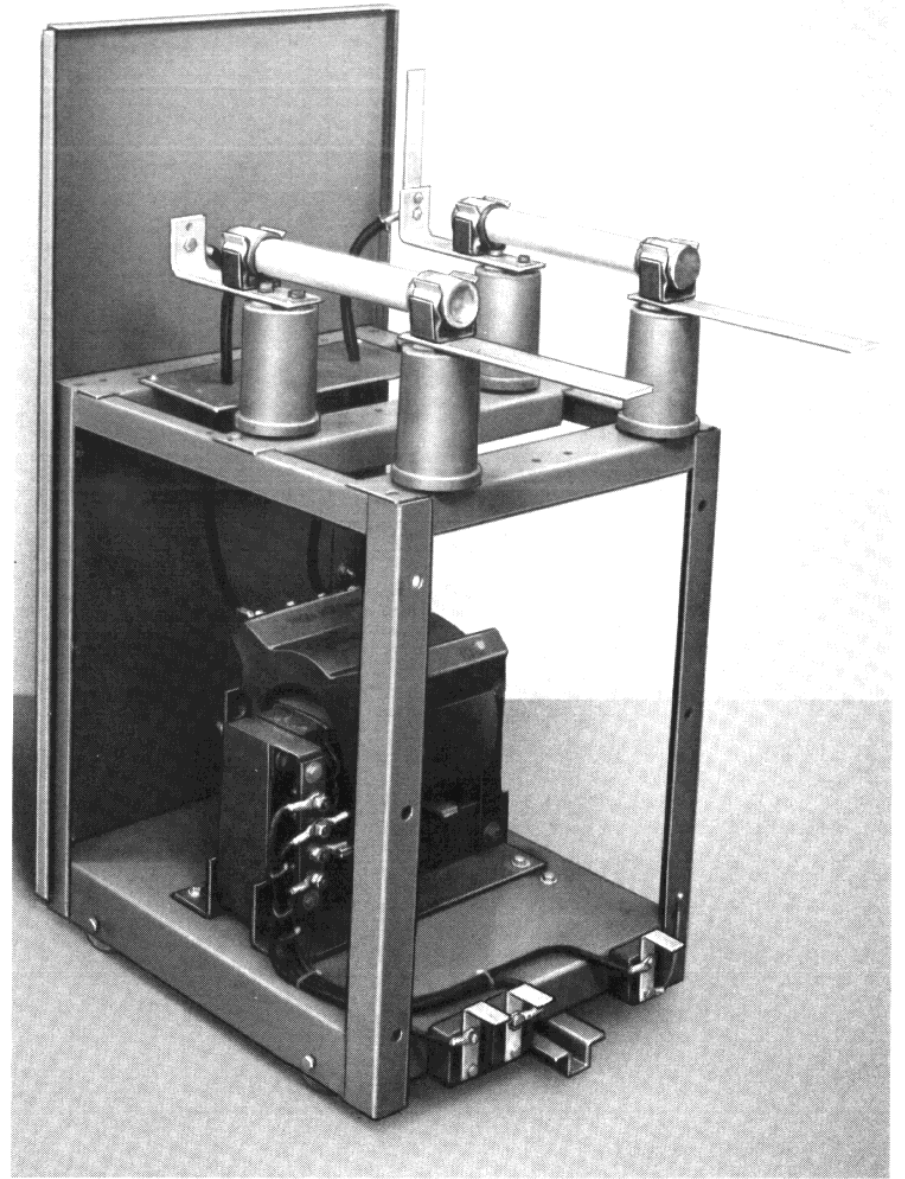
**SOLENARC DSE METAL-CLAD SWITCHGEAR**  
Outdoor walk-in metal-clad enclosure for 5KV and 15KV switchgear.

**September, 1976**





**Middletown**  
**Photo No. 6150-7710A**

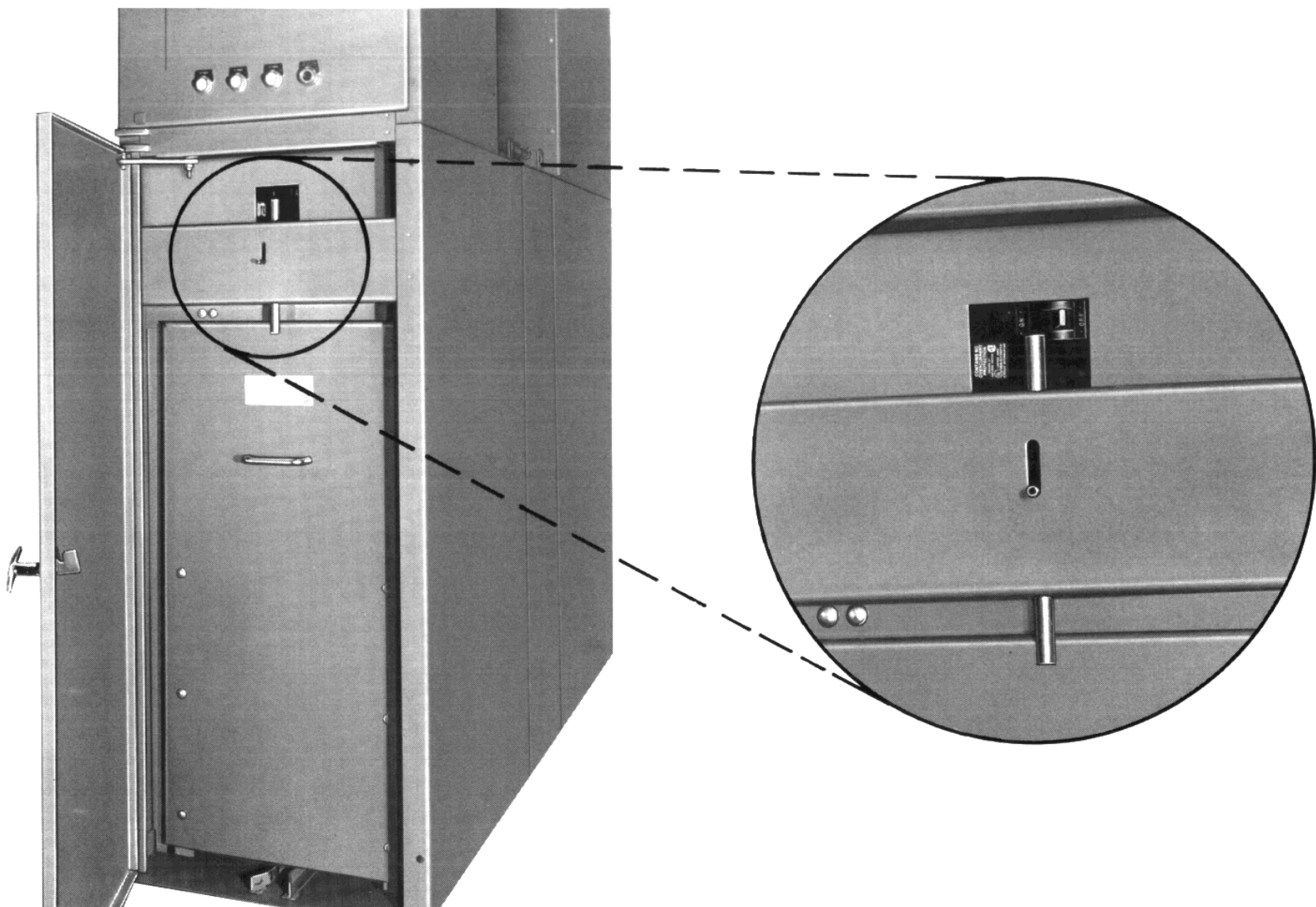


**Middletown**  
**Photo No. 6150-7710B**

#### **SQUARE D CONTROL POWER ROLL-OUT ELEMENT**

#### **SOLENARC DSE METAL-CLAD SWITCHGEAR**

SOLENARC Switchgear roll-out control power transformers are complete with fuses, transformer core and coil assembly, primary disconnecting fingers and secondary disconnecting fingers. The assembly includes an eleven gauge steel front plate which barriers operating personnel from all energized live parts. As the assembly is withdrawn from the cubicle the primary windings is automatically grounded to drain any residual charge in the windings.



**Middletown**  
**Photo No. 6150-7710C**

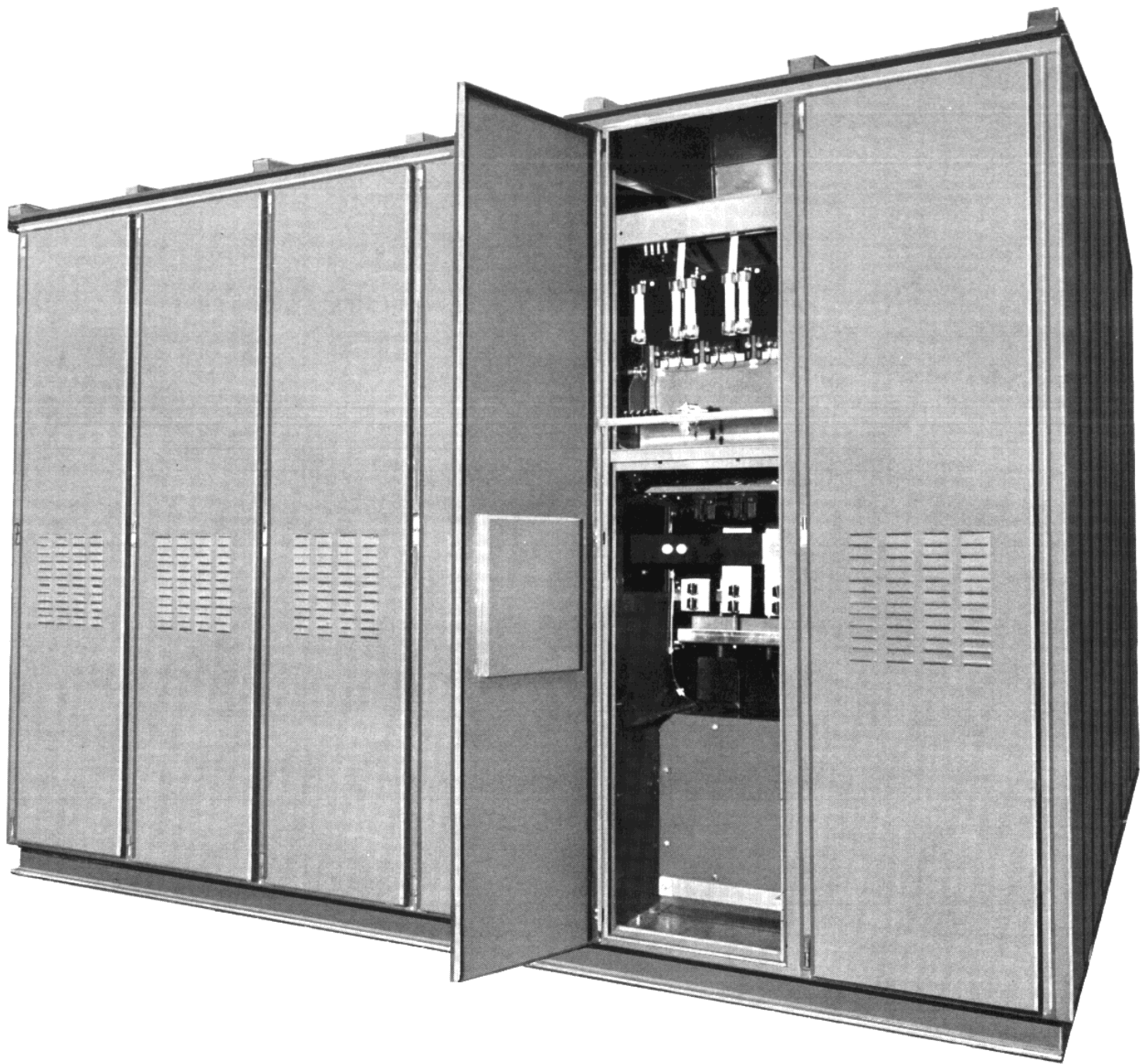
**Middletown**  
**Photo No. 6150-7710D**

#### **SOLENARC SWITCHGEAR CONTROL POWER TRANSFORMER**

#### **SOLENARC DSE METAL-CLAD SWITCHGEAR**

Square D Company can provide control power transformers up through 25 KVA single phase on a roll-out truck. These transformers are safety interlocked to insure the transformer secondary is unloaded when truck is removed from the cell. An interference type rod assembly is used in conjunction with the main secondary molded case circuit breaker operating handle to provide this interlocking.



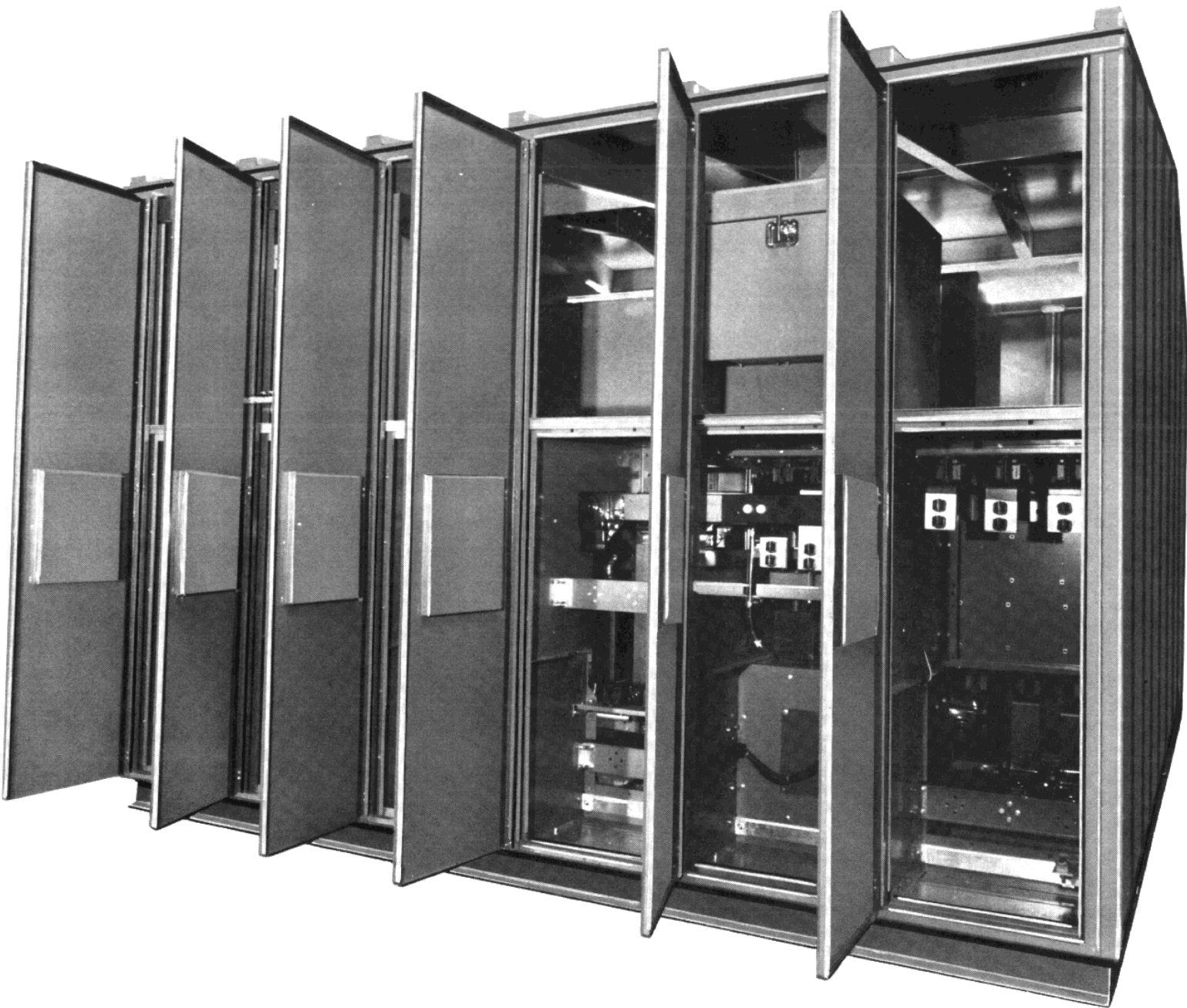


Middletown  
Photo No. 6150-76100

### **SOLENARC DSE METAL-CLAD SWITCHGEAR**

Rear view of the outdoor walk-in metal-clad enclosure with one rear access door opened and trunion mounted potential transformers in "dumped-out" position.

September, 1976

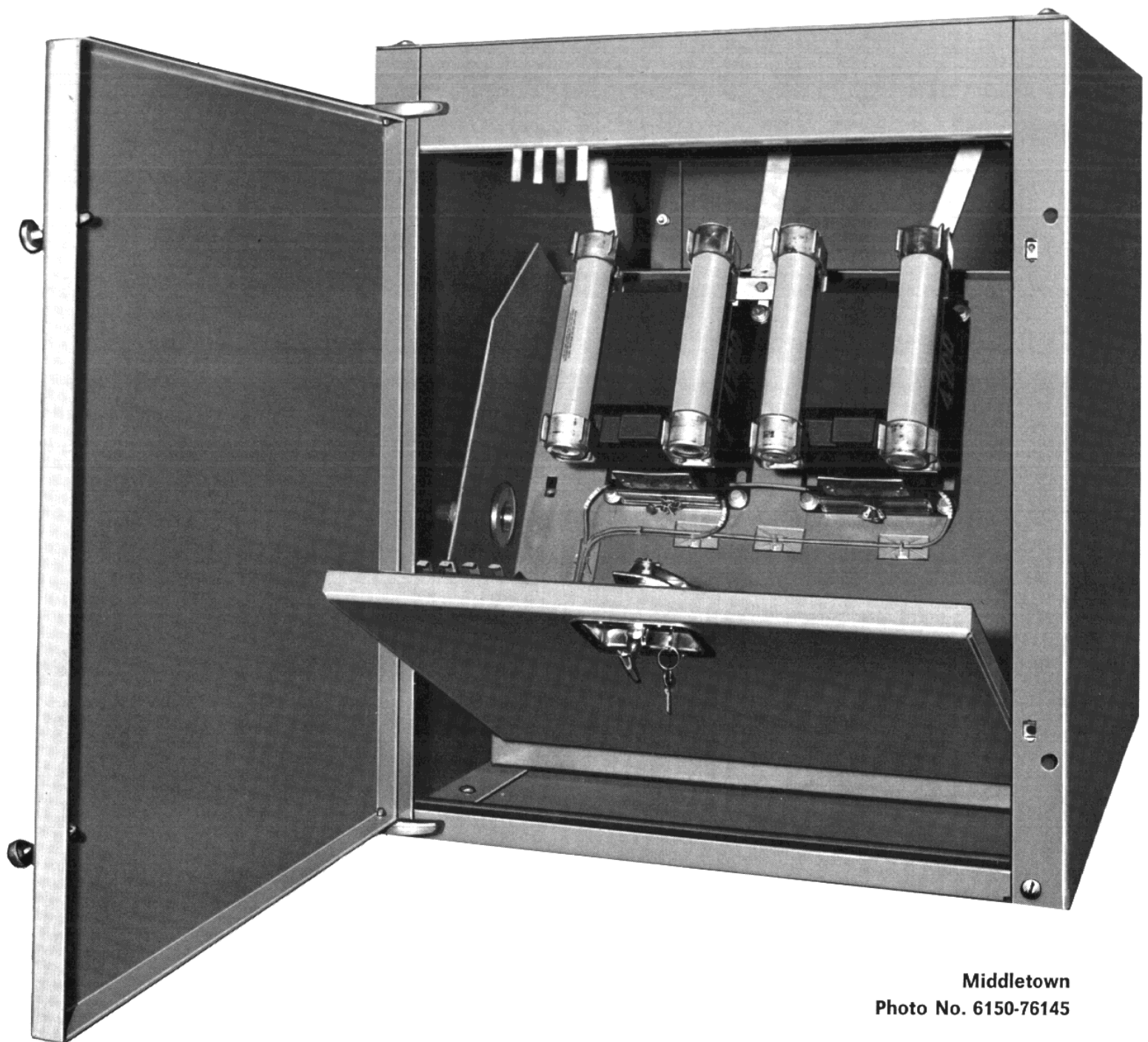


Middletown  
Photo No. 6150-76102

**SOLENARC DSE METAL-CLAD SWITCHGEAR**

Rear view of outdoor walk-in metal-clad enclosure with all rear access doors open.

September, 1976



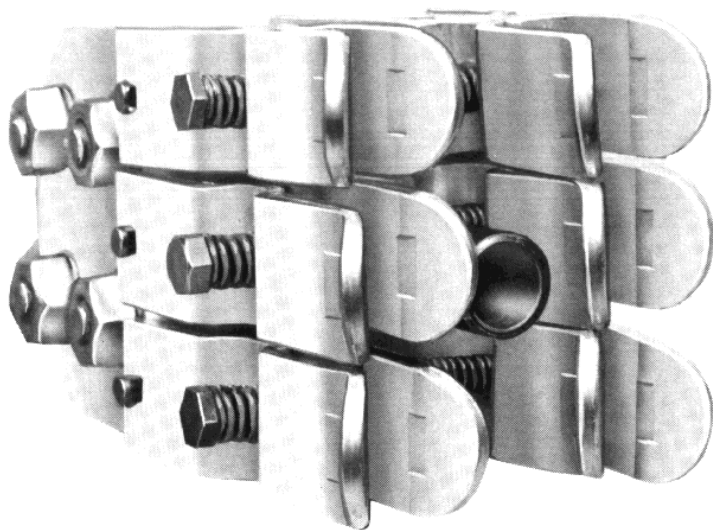
Middletown  
Photo No. 6150-76145

### **SOLENARC® DSE METAL-CLAD SWITCHGEAR**

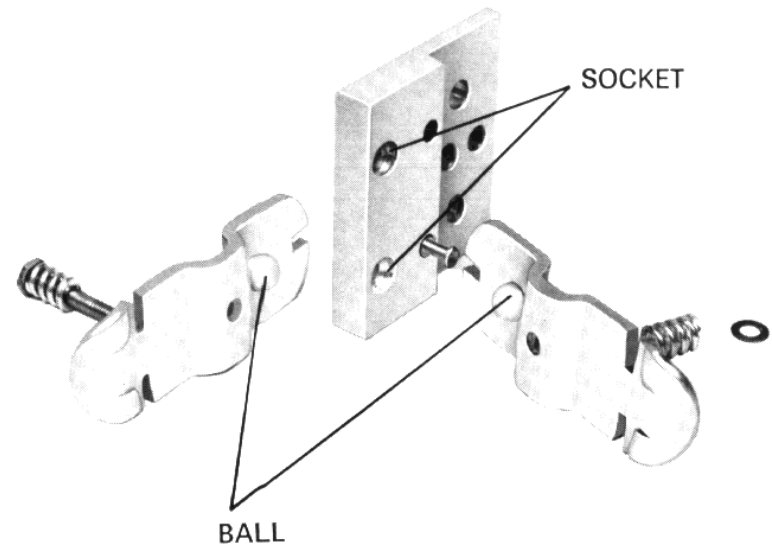
SOLENARC Metal-Clad Switchgear can be provided with trunnion-mounted potential transformers when required by the user. The above assembly is arranged to accept two (2) potential transformers, each equipped with two (2) fuses. The assembly can be re-arranged to accept three (3) potential transformers, each with a single fuse for line-to-neutral connections.

The tilt-out assembly is equipped with a key lock handle to prevent access by unauthorized personnel. When the assembly is in the tilt-out position, all primary contacts are grounded to the ground bus. Secondary controls are connected to the four (4) spring loaded flexible contacts in the upper left-hand corner of the compartment.





Middletown  
Photo No. 6150-774



Middletown  
Photo No. 6150-773

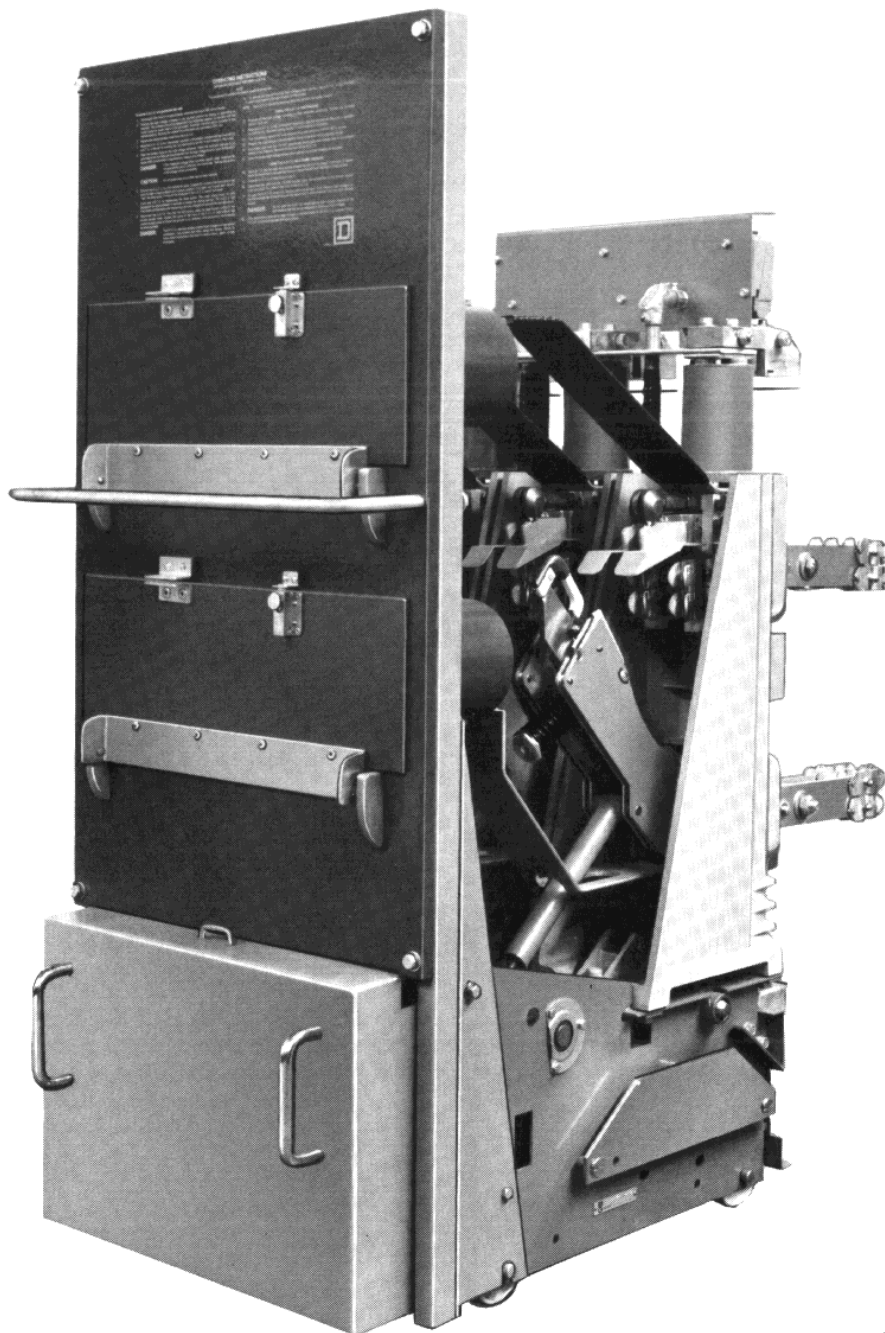
**SOLENARC DSE METAL-CLAD SWITCHGEAR**

Photo No. 6150-774

2000 ampere primary moving disconnect contact assembly. The self aligning spring loaded primary contacts are designed to "blow-on" under short circuit conditions. Each contact is rated individually at 600 amperes.

Photo No. 6150-773

1200 ampere primary moving disconnect contact shown unassembled. The ball and socket connection permits the contact to have the necessary flexibility for self alignment. The socket is somewhat smaller than the ball joint and produces a line contact for conducting the current when assembled and plugged in to the stationary contact.



Middletown  
Photo No. 6150-7722A

#### **AUTOMATIC GROUND AND TEST DEVICE**

#### **SOLENARC® DSE METAL-CLAD SWITCHGEAR**

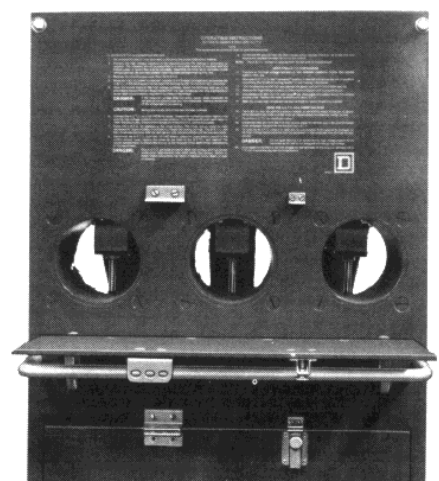
SOLENARC switchgear is available, with the option, of an automatic ground and test device which allows access to the main stationary current contacts in the circuit breaker cell on either the bus or cable side. This device can also be used as a dummy circuit breaker in an emergency situation. Ground and test devices additionally provide:

- a) Grounding of circuits during maintenance.
- b) Application of potential for cable testing.
- c) Access to both cable and bus side circuits for base sequence testing.
- d) Emergency connections to power source during primary circuit outage or scheduled shutdowns.



**Middletown**  
**Photo No. 6150-7722B**

#### **AUTOMATIC GROUND AND TEST DEVICE**



**Middletown**  
**Photo No. 6150-7722C**

#### **SOLENARC® DSE METAL-CLAD SWITCHGEAR**

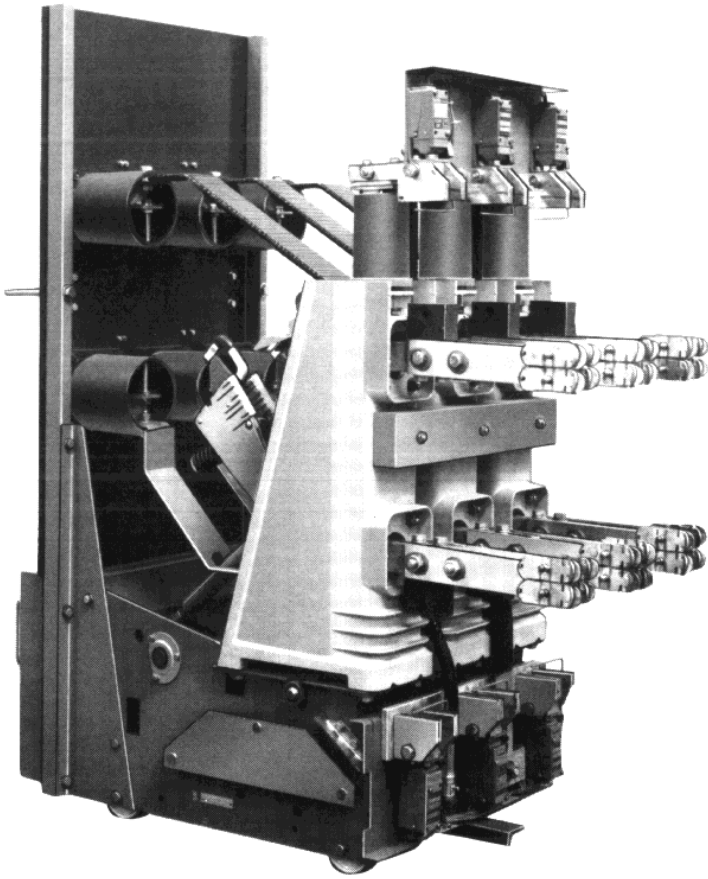
**Photo No. 6150-7722B**

Automatic ground and test device with control cover removed. Note the coil of cord with close and trip buttons to allow remote closing of the test device. This allows maximum safety for operating personnel. The various indicating lights indicate the mode of the test device in all positions.

**Photo No. 6150-7722C**

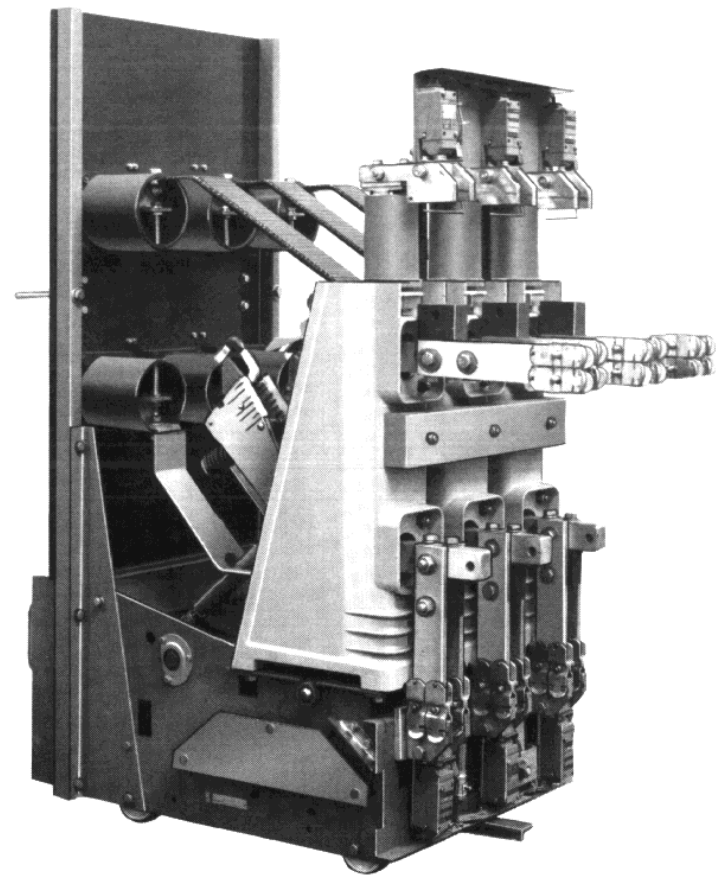
The ground and test device is equipped with two access doors. One for the cable connections and one for the bus connections. The above photograph shows the top access door in the open position exposing the cable side terminals. Complete operating instructions are supplied on the front of each test device.





**Middletown**  
Photo No. 6150-7722D

#### **AUTOMATIC GROUND AND TEST DEVICE**



**Middletown**  
Photo No. 6150-7722E

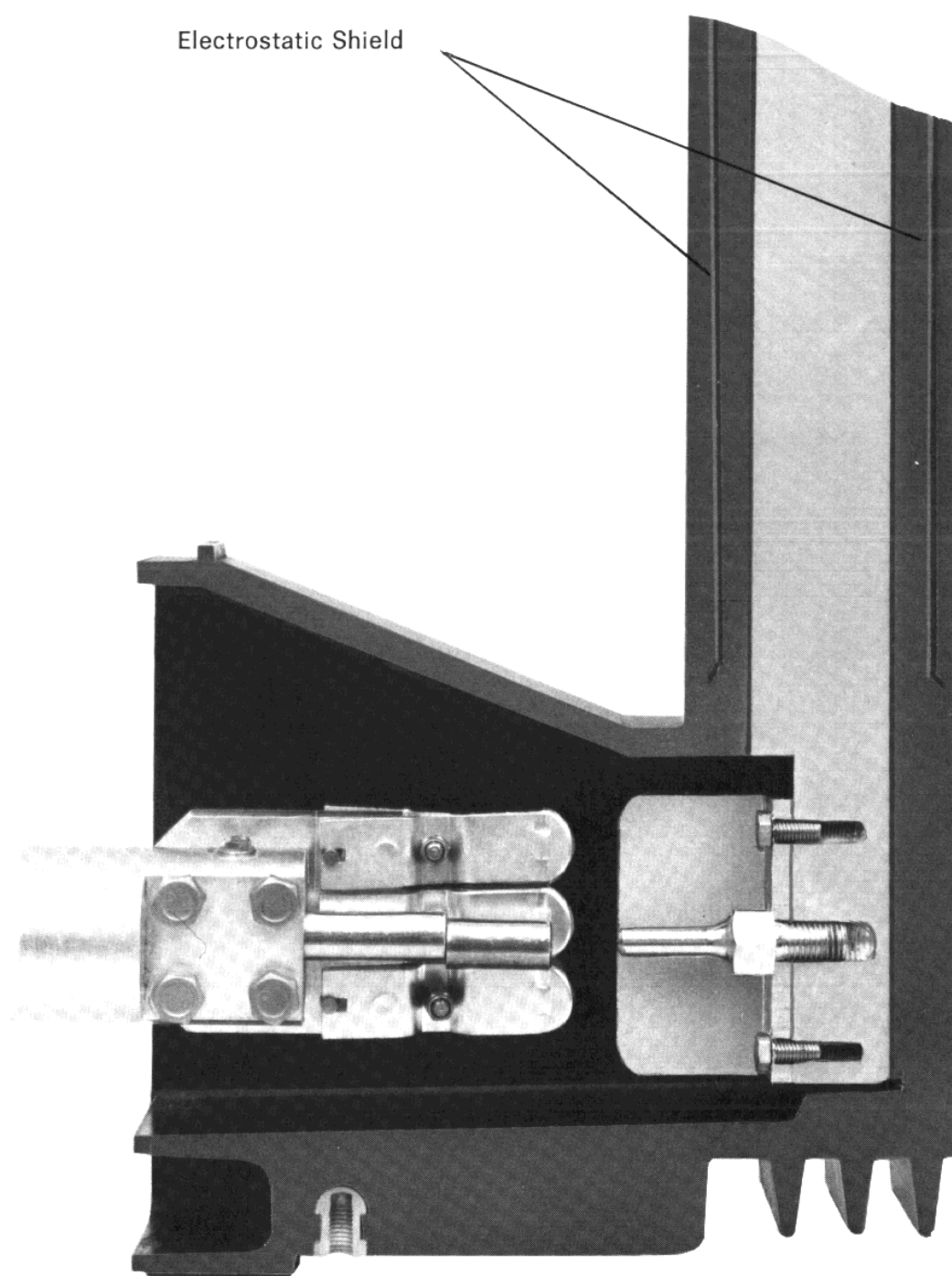
#### **SOLENARC® DSE METAL-CLAD SWITCHGEAR**

**Photo No. 6150-7722D**

Rear view of automatic ground and test device showing both cable and bus side connectors in the extended position. The test device can be used as a dummy circuit breaker with the runbacks in this mode.

**Photo No. 6150-7722E**

Automatic ground and test device with bus side connectors in the down and grounded position. Note the Square D limit switches on the bottom connectors and also on the top of the pole unit. The ground and test device will not close unless all three pole runbacks are in identically the same position. An additional safety feature provided as standard.

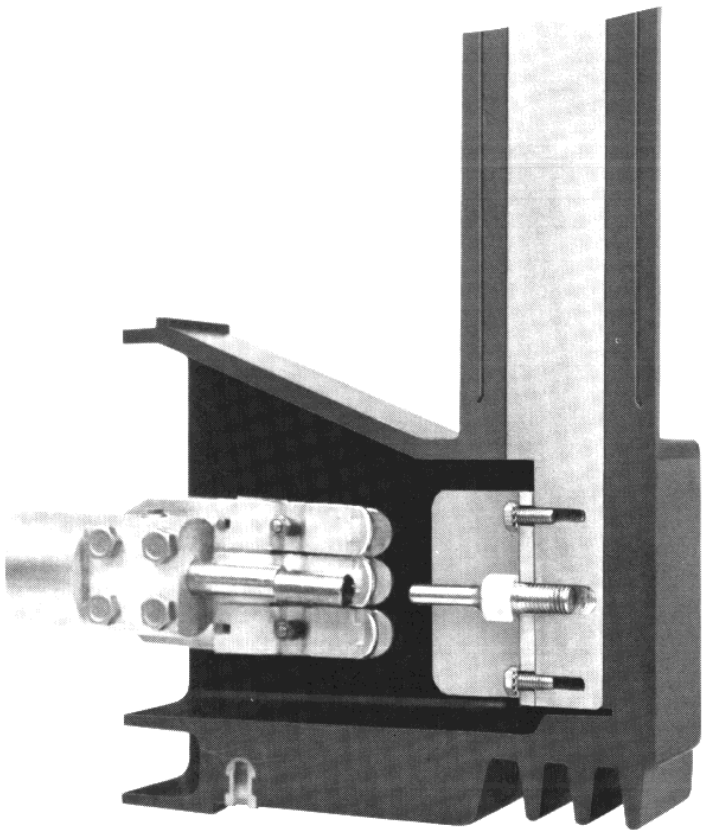


Middletown  
Photo No. 6150-76148a

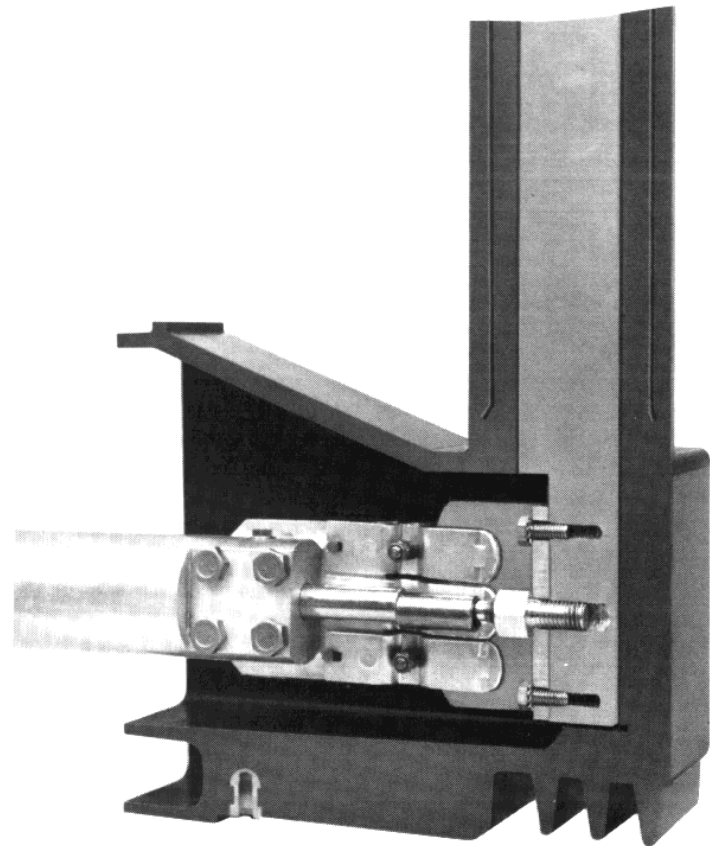
### **SOLENARC DSE METAL-CLAD SWITCHGEAR**

Cutaway view showing stationary and main moving primary disconnect contacts. The contacts shown are one-half of a 2,000 ampere assembly. The insulator, with its solid copper conductor, is vacuum cast cycloaliphatic epoxy. The insulator contains a grounded electro-static shield, molded into the assembly, to permit mounting of relaying current transformers.

February, 1977



**Middletown**  
**Photo No. 6150-76148b**



**Middletown**  
**Photo No. 6150-76148d**

### **SOLENARC DSE METAL-CLAD SWITCHGEAR**

**Photo No. 6150-76148b**

One-half of a 2,000 ampere moving contact assembly in the process of connecting to the stationary current carrying contact. The flexible self-aligning fingers make contact first and then the primary guide finger will engage the stationary pin.

**Photo No. 6150-76148d**

Self-aligning primary current carrying contacts and primary guide finger fully engaged on the stationary contacts. The stationary primary guide pin is multi-purpose in that it provides a short circuit bracing and insures alignment of all contacts in the stationary assembly.