# Type HVL Load Interrupter Switch

5/15 kV, upright or inverted 25.8 kV, upright only 38 kV, upright only

Class Number 9840

Instruction Bulletin Retain for future use.







# HAZARD CATEGORIES AND SPECIAL SYMBOLS



Read these instructions carefully and look at the equipment to become familiar with the device before trying to install, operate, service 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.

### **A** DANGER

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

### **A WARNING**

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

# **A** 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.

Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

#### **PLEASE NOTE**

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#### **SECTION 1—INTRODUCTION**

This bulletin contains instructions for the proper installation, operation, and maintenance of the HVL load interrupter switch manufactured by Schneider Electric. The HVL switch is a single-throw type switch. It is a primary component in many 2.4 kV to 38 kV power distribution systems, providing switching and overcurrent protection (when provided with fuses). HVL switches are typically used in unit substations, service entrance equipment, substation transformer protection, and sectioning of high voltage feeder systems.

The HVL switch can be mounted in indoor and outdoor enclosures, and is available in the following arrangements:

- 5/15 kV, upright or inverted, 600 A and 1200 A
- 25.8 and 38 kV, upright only, 600 A and 1200 A

Switches may come from the factory mounted in single or multiple bay units. They may also be furnished separately for OEM customers to use in their enclosures.

Figure 1: 15 kV HVL Switch



# SECTION 2—SAFETY PRECAUTIONS

### **A** DANGER

#### HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH.

- Only qualified electrical workers with training and experience on high voltage circuits should perform work described in this set of instructions. These workers must understand the hazards involved in working with or near high voltage equipment. Such work should be performed only after reading this complete set of instructions.
- Apply appropriate personal protective equipment (PPE) and follow safe electrical work practices. See NFPA 70E.
- Turn off all power before working on or inside equipment.
- Always use a properly rated voltage sensing device to confirm the power is off.
- The successful operation of HVL switches depends upon proper handling, installation, operation, and maintenance. Neglecting fundamental installation and maintenance requirements may lead to personal injury, as well as damage to electrical equipment or other property.
- HVL switches have features designed to promote proper operation, but it is not possible to eliminate every hazard with these features.
   Therefore, the person using this device is responsible for recognizing the potential hazards, for wearing protective safety equipment, and for taking adequate safety precautions.
- Do not make any adjustment to the equipment or operate the system with safety features removed. Contact your local Schneider Electric representative for additional instructions if the HVL switch does not function as described in this manual.
- Before performing visual inspections, tests, or maintenance on this
  device, disconnect all sources of electric power. Assume that all
  circuits are live until they have been 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.
- Before replacing covers or closing doors, carefully inspect the equipment for tools and objects left inside. Use care while removing or installing panels so that they do not extend into energized bus.
- Before making any electrical connection, take every precaution to see that all connections are de-energized and grounded.
- Introducing foreign objects into this equipment can cause a short circuit
  which can result in severe damage, personal injury, or death. Short
  circuits can release large amounts of energy due to a rapid expansion
  of super-heated, ionized gases. Products of this instantaneous
  expansion can quickly engulf and burn personnel before preventive
  action can be taken. The short circuit source can cause additional
  injuries by propelling personnel or objects several feet from the
  equipment.

Some foreign objects that can cause short circuits are tools, test leads and instruments not designed for high voltage circuits, wire, and other conducting or semiconducting materials.

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

# SECTION 3—RECEIVING, HANDLING, AND STORAGE

#### RECEIVING

Schneider Electric, or in a customer's proprietary enclosure. Check the packing list against the equipment received to ensure the order and shipment are complete. Claims for shortages or other errors must be made in writing to Schneider Electric within 60 days after receipt of shipment. Failure to do so constitutes unqualified acceptance and a waiver of all such claims by the purchaser.

HVL switches are normally mounted in metal-enclosed switchgear built by

Also upon receipt, immediately inspect the switchgear for damage which may have occurred during transit. If damage is found or suspected, immediately file a claim with the carrier and notify Schneider Electric.

Use care when uncrating, rolling, hoisting, or handling the switch. Use only lifting equipment suitable for the weight of the switch. Review the shipping documentation for the actual weight to be handled.

If the switch is stored before being placed into service, keep it in a clean, dry place that is free from corrosive elements and mechanical abuse. Energize the heaters inside the switchgear, or add heat from a separate source, such as a light bulb or blower. Use a minimum of 100 watts of heat per vertical section to keep the equipment dry during storage.

Covering the equipment with a tarpaulin may be necessary to protect it from contaminants or moisture. Do not store units outdoors.

In areas of high humidity, such as installations near oceans or rivers, monitor the equipment closely. If necessary, use additional heat to keep the switch dry. Contact the factory if the internal heaters do not prevent condensation inside the switchgear.

# **A** CAUTION

#### HAZARD OF PERSONAL INJURY OR EQUIPMENT DAMAGE.

- Do not remove the skids until the shipping sections are at the final location.
- Always use the skids to prevent equipment distortion.

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

#### **HANDLING**

#### **STORAGE**

#### **SECTION 4—INSTALLATION**

#### SITE PREPARATION

#### **SWITCH INSTALLATION**

Refer to the metal-enclosed switchgear instruction bulletin that was shipped with your equipment; follow site preparation instructions in that manual.

The HVL switch is shipped factory-mounted in an enclosure or separately for OEM customers. If the switch is factory-mounted in its enclosure, the switchgear is designed to comply with applicable standards. Refer to the metal-enclosed switchgear instruction bulletin for installation instructions.

If the HVL switch is shipped without an enclosure, perform these checks:

- Verify that the mounting provisions align with the holes in the switch frame
- Ensure that the bus and fuse connections align properly. There should be no stress on the connections or extensions.
- Tighten hardware according to the recommendations shown in Table 1.
- Install insulating barriers where necessary to provide the required clearance between energized bus and grounded parts.
- To view the switch position, a transparent window is recommended in the front panel or door, opposite the contact break area.

The switch and enclosure must interlock in conformance with the planned interlock scheme.

Table 1: Tightening Torques

Bolt Size	Sheet Metal Joints (SAE #2 Steel Bolts)	Electrical Connections (SAE #5 Steel Bolts)	
1/4-20	7 lb-ft (9.5 N•m)	_	
5/16-18	14 lb-ft (18.9 N•m)	_	
3/8-16	21 lb-ft (28.4 N•m)	35 lb-ft (47.2 N•m)	
1/2-13	42 lb-ft (56.7 N•m)	70 lb-ft (94.5 N•m)	

# SECTION 5—INITIAL PREPARATION

After the switch is installed and all interconnections made, test the equipment and give it a final check before placing it in service.

A standard 60 cycle hi-pot test will normally indicate if the equipment is satisfactory for service. See Table 2 on page 12 for test values. Follow other equipment testing procedures as required by in-house standards.

### **A WARNING**

#### HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH.

Exercise extreme care to prevent the switch from being energized while conducting the preliminary tests. If disconnect switches cannot be opened, disconnect the line leads.

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

After preliminary testing is complete but before energizing the HVL switch, perform the following inspections:

- Check all control wiring (when present) with the wiring diagrams to ensure that connections are properly made.
- Inspect all insulating surfaces for dirt and moisture, including the primary support insulators and isolation barriers. If necessary, wipe with a clean cloth.
- 3. Check all conductor fasteners and bolted connections for proper tightening torque; see the table on Table 1 on page 7 for values. Bolts with a torque seal have already been fastened at the factory.
- 4. Fasten all barriers and covers in place.
- 5. Insert the proper keys in the interlocks, when used.

#### **SECTION 6—INTERLOCKS**

Mechanical interlocks are standard features designed to minimize hazards to the operator while operating the switchgear. For example, the door interlock is designed to prevent opening the front door while the load interrupter switch is closed.

Key interlocks are optional equipment, often supplied in conjunction with metal-enclosed switchgear to direct proper operation of the equipment. The key interlock schemes are usually described on the switchgear assembly drawings.

### **A** DANGER

#### HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH.

When equipment is supplied with extra interlock keys, to be used during installation, the user is responsible for removing the extra keys. After reviewing the key interlock specifications, the user should provide only the necessary keys to properly operate the equipment. Extra keys should be destroyed or placed in a secure place, accessible to only selected personnel.

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

Figure 2: Key Interlock



# SECTION 7—OPERATING SEQUENCES

#### **SWITCH OPENING**

The switch opens in the following sequence:

In the closed position, the main blade mates with the stationary contact.
 The circuit current flows through the main blades while in this position (Figure 3).

Figure 3: Blades Closed



- Pull the operating handle back and down. If the switch is motoroperated, the motor relay is activated by a local control switch or remote signal.
- As the operating handle (or motor) moves toward the open position, the mechanism springs are charged. When the springs are fully charged, they toggle over the top dead center position, quickly discharging force to the operating shaft.
- 4. The operating shaft motion forces the main blades away from the stationary contacts. The interrupting blades are held closed, momentarily carrying all the circuit current (Figure 4).

Figure 4: Main Blade Open, Interrupter Blade Closed

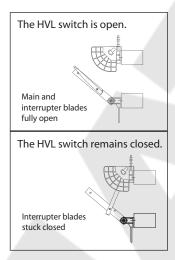


- Once the main blades have separated well beyond arcing distance, the interrupting blades disengage from the stationary contacts. The resulting arc is elongated and cooled by the arc chute.
- 6. The main and interrupting blades continue to the fully open position (Figure 5). Spring pressure holds the blades and mechanism in the open position.

Figure 5: Blades Open



Figure 6: Blade Positions



#### **SWITCH CLOSING**

### A DANGER

#### HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

After operating the HVL switch to the OPEN position, always look through the viewing window and verify that all three main and interrupter blades are fully open (see Figure 6). If any of the blades remain closed, do not work on or in this switch, or on downstream equipment. Contact Schneider Electric.

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

The switch closes in the following sequence:

- 1. If the switch is in an enclosure, close the door (to activate the switch interlock). Set the key interlock mechanism to ensure proper operation.
- Close the switch by lifting the operating handle up and forward. If the switch is motor-operated, the motor relay is activated by a local control switch or remote signal.
- As the operating handle (or motor) moves toward the closed position, the mechanism springs are charged. When the springs are fully charged, they toggle over the top dead center position, quickly discharging force to the operating shaft.
- 4. The operating shaft moves the blades toward the closed position.
- 5. The blades fully close and are maintained in the closed position by the operating shaft arms and the connector links.
- The interrupter blades are captured behind the stationary arcing contacts, which delay the blades during the successive opening operation.

#### **SECTION 8—MAINTENANCE**

#### **INSPECTION SCHEDULE**

Perform inspection and maintenance on the basis of operating conditions and experience. Abnormal conditions may require immediate attention while regularly scheduled maintenance will depend on availability of "downtime" and qualified personnel.

After a fault current or stressful condition on a circuit, inspect the switch at the first opportunity. Otherwise, inspect the switch once each year. In a clean indoor or otherwise controlled environment the inspection interval could be extended up to five years.

### **A** DANGER

#### HAZARD OF PERSONAL INJURY OR EQUIPMENT DAMAGE.

- Perform inspections, maintenance procedures, and parts replacement only with the primary source(s) of power disconnected and locked open.
   Be absolutely sure there is no backfeed through any feeder circuit.
- Always use a properly rated voltage sensing device to confirm the power is off.

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

Give the switch an overall maintenance check in the following areas. As stated in the warning above, make sure the equipment is de-energized before performing any maintenance or parts replacement.

Perform a standard 60-cycle hi-pot test to measure insulation integrity. Use the test voltage levels in Table 2.

Table 2: Field Test Voltages

Equipment Dating	Field Test Voltages		
Equipment Rating	(AC)	(DC)	
4.76 kV	14 kV	20 kV	
8.25 kV	19 kV	27 kV	
15 kV	27 kV	38 kV	
25.8 kV	45 kV	63 kV	
38 kV	60 kV	85 kV	

Apply the voltage to each phase individually for one minute, with the other two phases and the enclosure grounded. If the test is unsuccessful, inspect the insulators for leakage paths. If necessary, clean the surface of the insulator(s) and test again. If the results are still unacceptable, please notify your local Schneider Electric sales representative.

Inspect connections for symptoms which might indicate overheating or weakened insulation. If necessary, re-tighten hardware according to the values in Table 1 on page 7. Remove dust from busses, connections, supports, and enclosure surfaces. Wipe clean with a solvent such as denatured alcohol.

#### **INSPECTION PROCEDURE**

**Dielectric** 

#### **Connections**

#### **Interrupter Blades**

#### **Main Blades**

#### **Control Wiring**

#### **Mechanical Parts**

# BLADE REPLACEMENT AND ADJUSTMENT

Inspect the switch interrupter blades about every 100 operations. When one-third of the arcing tip is burned away, replace the blade assembly and arc chute assembly as described in the following sections.

Wipe the main blade and jaw occasionally to remove dust accumulation. Lubricate the main blade and jaw with a light film of Mobilgrease 28. Never clean the contacts with an abrasive material. Do not lubricate the interrupter blades or arcing tips.

Check any wiring connections for tightness.

Manually operate mechanical moving parts such a switch assemblies, interlocks, doors, etc.

Before performing any maintenance or parts replacement, turn off all power to the switch and use a properly rated testing device to confirm the power is off. Lubricate all bearings and moving metal parts with Mobilgrease 28.

The contact pressure of the main and interrupter blades is factory-adjusted; it should require no readjustment with normal switch operation. If field maintenance is required, follow these steps:

- 1. Begin with the switch in the open position. Disconnect the connector links from the main shaft by removing the bolts, spacers, and nuts.
- Remove the main and interrupter blade assembly by removing hinge bolt A (Figure 7).

Figure 7: Blade Assembly



Clean and lubricate the jaw and hinge contact surfaces using Mobil 28<sup>®</sup> red grease.

# **ACAUTION**

#### HAZARD OF EQUIPMENT DAMAGE.

Do not lubricate the interrupter blades or arcing tips.

Failure to follow this instruction can result in product damage.

4. Attach the new blade assembly to the hinge using hinge bolt A (Figure 7 on page 13). Ensure that the silver tungsten arcing tip on the interrupter blade faces the arc chute. Align and adjust the blade assembly as described below.

#### **Blade Alignment:**

- Check alignment of each main blade with the jaw. The interrupter blade must also be centered with the arc chute assembly.
- If alignment is necessary, loosen the jaw and hinge casting mounting bolts, align the blades, and re-tighten bolts. The arc chute assembly must be in the extreme upper position to ensure that the interrupter blade does not strike the mounting bracket inside the arc chute.
- Open the switch blades by hand. The interrupter blade must remain in the arc chute until it disengages from the stationary contacts in the arc chute, allowing the interrupter blade to spring outward.

### **ACAUTION**

#### HAZARD OF PERSONAL INJURY OR EQUIPMENT DAMAGE.

The blades release at a very high velocity. Use caution when manually opening blades. Keep hands and objects clear of the blade path.

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

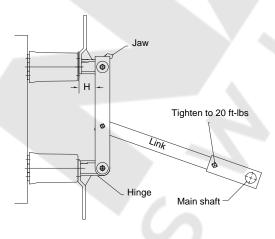
#### **Blade Adjustment:**

- Disconnect the connector links from the main shaft.
- Open the blades and tighten bolt A until the lubricated hinge friction is just sufficient to support the weight of the blades when horizontal.
- Close the blades and tighten bolt B until the force required to disconnect the blades (applied at bolt B) matches the force shown in Table 3. Apply the force perpendicular to the closed blades.

Table 3: Blade Disconnect Forces

HVL Switch Short Circuit Rating	Pullout Force
40 kA	60-70 lb
61 kA/80 kA	90-110 lb

#### Figure 8: Blade Penetration



### **A** DANGER

#### HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

Tightening the HVL switch main contact bolts A and B to more than 20 ft-lbs will cause the interrupting or main blades to remain closed even though the switch handle indicates the switch is OPEN.

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

 Reassemble the connector links to the main shaft and then close the switch. Adjust the distance H (see Figure 8) between the bottom of the main blades and the top of the arc chute bracket to 1.88 in. for 600 A switches and 1.75 in. for 1200 A switches. Torque the links to the main shaft to 20 ft-lbs.

#### ARC CHUTE ASSEMBLY REPLACEMENT

Follow these steps to replace the arc chute assembly.

- Before performing any maintenance or parts replacement, turn off all power to the switch and use a properly rated testing device to confirm the power is off.
- Start with the switch in the closed position. Disconnect the insulating links from the main shaft by removing the bolts, spacers, and nuts.
- 3. Open each blade assembly. Remove the two bolts holding the jaw and arc chute assembly to the insulator.
- Re-assemble the jaw and new arc chute assembly. Tighten the two mounting bolts until they are finger-tight.
- Close each blade assembly, aligning the main blade with the jaw. Align the interrupter blade with the center of the arc chute assembly and tighten bolts.
- Following the steps described in the Blade Adjustment section, adjust the blades.

Figure 9: Arc Chute Assembly



# SWITCH JAW OR SWITCH HINGE CASTINGS REPLACEMENT

Follow these steps to replace the switch jaw or switch hinge castings:

- 1. Before performing any maintenance or parts replacement, turn off all power to the switch and use a properly rated testing device to confirm the power is off.
- 2. Start with the switch in the closed position. Disconnect the insulating links from the main shaft by removing the bolts, spacers, and nuts.
- 3. Open each blade assembly. Remove the two bolts holding the jaw or hinge casting to the insulator.
- 4. Re-assemble the blade assembly, arc chute assembly, and new casting(s). Tighten the mounting bolts until finger-tight.
- Close each blade assembly, aligning the main blade with the jaw. Align the interrupter blade with the center of the arc chute assembly and tighten bolts.
- Following the steps described in the Blade Adjustment section, adjust the blades.

#### **INSULATOR REPLACEMENT**

Follow these steps to replace the insulator(s):

- Before performing any maintenance or parts replacement, turn off all power to the switch and use a properly rated testing device to confirm the power is off.
- Start with the switch in the closed position. Disconnect the insulating links from the main shaft by removing the bolts, spacers, and nuts.
- Open each blade assembly. Remove the two bolts holding the jaw or hinge casting to the insulator. Remove the mounting bolts holding the insulator.
- 4. Change out the insulator(s) and re-assemble the casting(s), blade assembly, and arc chute assembly. Tighten the front mounting bolts until finger-tight.
- Close each blade assembly, aligning the main blade with the jaw. Align the interrupter blade with the center of the arc chute assembly and tighten bolts.
- Following the steps described in the Blade Adjustment section, adjust the blades.

#### CONNECTOR LINK REPLACEMENT

Follow these steps to replace the insulator connector links.

- Before performing any maintenance or parts replacement, turn off all power to the switch and use a properly rated testing device to confirm the power is off.
- 2. Start with the switch in the closed position. Disconnect the connector links from the main shaft by removing the bolts, spacers, and nuts.
- 3. Re-assemble the new insulator links.
- Before operating the switch, grasp the main blades, making sure there is a slight amount of play between the main blade spacer and the jaw. The spacer should turn freely at all times.

Figure 10 illustrates new- and old-style main shaft connections.

NOTE: Parts are no longer available for old-style connections.

#### Figure 10:Main Shaft Connections



**New Style** 



Old Style

# SECTION 9—REPLACEMENT PARTS

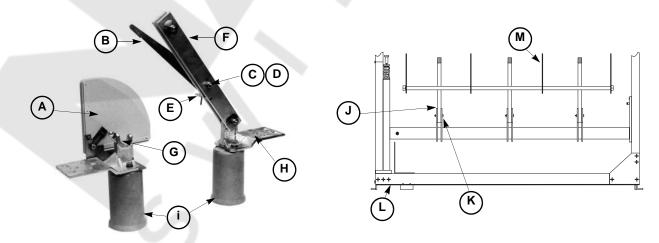
When ordering parts, include as much information as possible. Often, the part number of a new part can be obtained from identification of the old part. Always include the description of the part. Specify the rating, vertical section, and factory order number of the equipment in which the part is to be used.

Table 4: 5/15 kV Replacement Parts 1, 2, 3

	The second secon	
Figure 10 Item Number	Description	Part No.
А	Arc Chute Assembly	44035-198-50
В	Interrupter Blade Assembly	44035-199-50
С	Shoulder Bolt Locknut	80025-005-01 23201-10240
D	Spacer	44035-002-01
E	Spring	44035-216-01
F	Main Blade (1200 A) <sup>4</sup> Main Blade (600 A) <sup>4</sup>	44035-204-01 44035-203-01
G	Switch Jaw (1200 A) Switch Jaw (600 A)	44035-001-02 44035-001-01
Н	Switch Hinge Casing (1200 A) Switch Hinge Casing (600 A)	44035-202-02 44035-202-01
1	Insulator—Glass Polyester (up to 15 kV) Insulator—Porcelain (up to 15 kV)	29903-01930 80029-002-03
J	Connector Link	44035-208-01
К	Spacer Locknut 3/8 Screw Washer	44035-002-01 23201-10240 21401-24560 23601-00240
L	Interlock Pivot Assembly	44036-161-50
M <sup>5</sup>	Barrier Assembly—Unfused, 29" (737 mm) L Barrier Assembly, 48" (1219 mm) L Barrier Assembly, 60" (1524 mm) L, SM4, SM5 Barrier Assembly, 60" (1524 mm) L, CLE3, RBA800 Barrier Assembly, 60" (1524 mm) L, RBA200, RBA400 Barrier Assembly—Inverted, 29" (737 mm) L Barrier Assembly—Inverted, 48" (1219 mm) L	44037-571-50 44037-077-50 44037-078-50 44037-079-50 44037-078-50 44037-572-50 44037-081-50
Not Shown	Contact Grease (Mobil 28) Switch Handle Assembly <sup>6</sup>	1615-100950 44036-320-50

Consult factory for parts not included in this table.

Figure 11: 5/15 kV Replacement Parts



<sup>&</sup>lt;sup>2</sup> Contact the factory for 80 kA switch parts.

<sup>&</sup>lt;sup>3</sup> New motor operator after 1996. See Instruction Bulletin 9840-5 for details.

<sup>&</sup>lt;sup>4</sup> Continuous current rating.

<sup>&</sup>lt;sup>5</sup> Shipped disassembled.

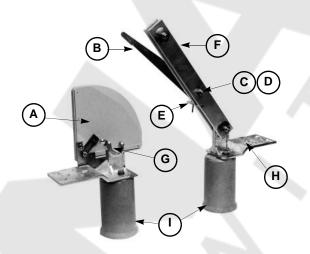
<sup>&</sup>lt;sup>6</sup> New handle casting design after 1991.

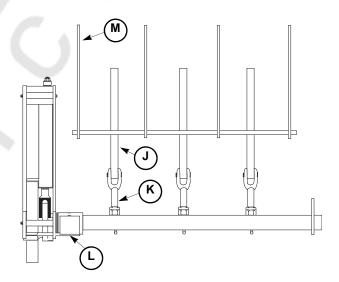
Table 5: 25.8 and 38 kV Replacement Parts <sup>1, 2</sup>

Figure 11 Item Number	Description		25.8 kV Square D Part No.	38.0 kV Square D Part No.
Α	Arc Chute Assembly		44035-198-50	44035-198-50
В	Interrupter Blade		44035-199-5 <mark>0</mark>	44035-199-50
С	Shoulder Bolt Locknut		80025-005 <mark>-01</mark> 23201-10240	80025-005-01 23201-10240
D	Spacer		44035-002-01	44035-002-01
E	Spring		44035-216-01	44035-216-01
F	Main Blade	(1200 A) <sup>3</sup> (600 A) <sup>3</sup>	44035-808-01 44035-807-01	— 44035-806-01
G	Switch Jaw Casting	(1200 A) (600 A)	44035-001-01 44035-001-01	 44035-001-01
Н	Switch Hinge Casting	(1200 A) (600 A)	44035-202-01 44035-202-01	— 44035-202-01
Ţ	Insulator	25.8/38 kV (porcelain)	29903-01996	29903-01996
J	Connector Link	polyester	44035-208-02	44035-208-05
К	Spacer Locknut 3/8-inch Screw Washer		44035-002-01 23201-10240 21401-24560 23601-00240	44035-002-01 23201-10240 21401-24560 23601-00240
L	Interlock Pivot Assembly		44036-161-50	44036-161-50
М	Barrier Assemblies <sup>4</sup>		44035-629-(50, 51, 54)	44035-629-(52, 53)
Not Shown	Contact Grease (Mobil 28) Operator Crank Switch Handle <sup>5</sup>	(Center Knob) (Side Knob)	1615-100950 44035-145-01 80026-001-50 80026-001-51	1615-100950 44035-145-01 80026-001-50 80026-001-51

Consult factory for parts not included in this table.

Figure 12: 25.8 and 38 kV Replacement Parts





New motor operator after 1996. See Instruction Bulletin 9840-5 for details.

<sup>3</sup> Continuous current rating.

Shipped disassembled.

<sup>&</sup>lt;sup>5</sup> New handle casting design after 1991

# SECTION 10—INSTALLATION AND MAINTENANCE LOG

Date	Initials	Actions
-		
-		
	Alternation	
-		
/		



#### Schneider Electric

330 Weakley Road Smyrna, TN 37167 U.S.A. 1-888-SquareD (1-888-778-2733) www.SquareD.com Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

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