

# **Preventive Maintenance Guide**





## Introduction

The information presented in this guide has been compiled to provide the users and customers of an SEL POWERCORE a maintenance program to ensure optimal performance of the building.

It is strongly recommended that this guide be read carefully before you perform any maintenance to the building.

Every effort has been made to make operation of this product as reliable and troublefree as possible. However, it is very important that you perform preventive maintenance at the intervals specified in this guide to ensure proper operation of the building.

## **Factory Assistance**

Should a malfunction occur, contact the service department at the following address:

Schweitzer Engineering Laboratories, S.A. de C. V.

Tel: +1.704.504.4127 Internet: selinc.com Email: info@selinc.com

## Safety Guide

Follow all company and industry safety standards when performing maintenance on the POWERCORE building. Ensure that you use proper personal protection equipment and perform maintenance work with trained personnel.

### **Keep Site Clean**

- ➤ Keep passages clear at all times.
- ➤ Sort out materials and pile them up safely. The stacks should not be too high.
- Beware of floor openings and ensure that they are fenced or covered.
- ➤ Remove refuse as soon as possible.
- ➤ Provide sufficient lighting.
- ➤ Familiarize yourself with the location and the operation of firefighting equipment.

### Safety Measures

- ➤ Before you operate a machine, ensure that any safety guards or functions are installed and operational.
- ➤ Avoid going to any area with insufficient lighting as there may be some dangerous places which have not been provided with fencing.
- ➤ Always be aware of your surrounding environment and watch out for moving cranes, hooks, or other overhead equipment.
- ➤ Before you use any electrical installation or tool, check the condition of its electric cables.
- ➤ Avoid dragging electric cables on the ground or allowing the cables to come into contact with water.
- ➤ Use electrical tools installed with an earth leakage circuit breaker.
- ➤ Use and handle chemicals with care.
- ➤ After a significant weather event, inspect the roof membrane, flashings, gutters, and downspouts. Ensure that the membrane is free of damage and that sealant joints are not scratched, cracked, or peeling.
- ➤ After an earthquake, inspect all concrete modular panels. If any cracks are found, contact your SEL representative.

## **Every 6 Months**

### **Building (Exterior)**

**NOTE:** Also perform this maintenance after every significant weather event.

Component	Maintenance
Roof	➤ Inspect membrane, flashings, gutters, and downspouts. Ensure that membrane is free of damage and that sealant joints are not scratched, cracked, or peeling.

## Every (1) Year

In addition to the preventive maintenance steps listed in Every 6 Months, also perform the following actions.

### **Building (Exterior)**

Component	Maintenance
Roof	➤ Clean with water and remove foreign objects from the roof and gutters. Avoid using harsh dirt removers or solvents.

### **Building (Interior)**

Component	Maintenance
Floor	➤ Clean with water and remove any foreign objects. Avoid using harsh dirt removers or solvents.

### **Electrical Accessories** (External)

Component	Maintenance
HVAC	➤ Inspect the condensation drain, system, louvers, and thermostat, and ensure proper operation.
	➤ Clean all user-serviceable filters.

## **Every 2 Years**

In addition to the preventive maintenance steps listed in Every 6 Months and Every (1) Year, also perform the following actions.

## **Building (Exterior)**

Component	Maintenance
Fiberglass Accessories	➤ Ensure that hood surfaces are free of breaks or cracks, and that no bolts are loose or missing.
	➤ Ensure that the perimeter sealant is properly adhered. Install seal model 550FC by 3M to replace any missing or damaged sealant (refer to manufacturer's installation instructions).
Walls	➤ If the POWERCORE building is in a corrosive environment, clean with water.

# **Every 3 Years**

In addition to the preventive maintenance steps listed in *Every 6 Months* and *Every (1) Year* (and *Every 2 Years*, if applicable), also perform the following actions.

### **Building (Exterior)**

Component	Maintenance
Doors	<ul> <li>Inspect the exterior and interior paint. The paint must be free of cracks, peeling, chalking, scratches, and corrosion.</li> <li>Inspect gaskets and ensure that they are free of cracks and are adhering properly to the door surface.</li> </ul>
Windows	<ul> <li>Inspect glass and inside and outside seals and ensure that they are free of cracks, breaks, or scratches.</li> <li>Inspect frames and frame screws and ensure that they are free of corrosion, paint peeling, and dents, and that no screws are missing or lose.</li> </ul>

# Electrical Accessories (Exterior)

Component	Maintenance
HVAC	➤ Replace all user-serviceable filters.
Exhaust Fan	<ul> <li>Inspect the exhaust fan louvers and ensure proper operation.</li> <li>Verify that the input voltage is correct and that no frame screws are missing or loose.</li> </ul>
Outdoor Lighting	➤ Verify proper operation of the switch, photocell, and lamp.

# Electrical Accessories (Interior)

Component	Maintenance
Receptacles	➤ Ensure that the receptacles are free of cracks or debris, and that the output voltage and grounding is operating properly.
Indoor Lighting	➤ Verify proper operation of switches and lamps.
Sensors	➤ Verify proper operation of the door micro switch, hydrogen sensor, temperature sensor, motion sensor, and smoke detector.

## **Every 5 Years**

In addition to the preventive maintenance steps listed in *Every 6 Months* and *Every (1) Year* (and *Every 2 Years* and/or *Every 3 Years*, if applicable), also perform the following actions.

### **Building (Exterior)**

IMPORTANT: After an earthquake, inspect all concrete modular panels. If any cracks are found, contact your SEL representative.

Component	Maintenance
Walls	➤ Inspect wall coatings and joint sealants. Both should be free of cracks, scratches, chalking, peeling, and corrosion, and the joint sealants should be properly adhered.
	➤ Clean surfaces with water.
	➤ Clean and apply sealant on concrete walls. Use Durafloor 750 sealant (refer to manufacturer's instructions for use). <sup>a</sup>
Doors	➤ Lubricate the hinges and panic bar with 3-IN-ONE oil. Refer to manufacturer's instructions for use.
Anchoring	➤ Inspect bolts to ensure they are present and free of corrosion. Replace any missing or corroded bolts.

<sup>&</sup>lt;sup>a</sup> Only applies to concrete buildings.

## **Building (Interior)**

Component	Maintenance
Floor	➤ Inspect the paint and ensure it is free of scratches, peeling, or corrosion.
Walls	➤ Inspect all trims and flashing. Ensure that they are correctly installed and attached, and that the joint sealant is free of scratches and properly adhered. Inspect the panels and ensure that they are free of dents and cracks.

### **Electrical Accessories** (Exterior)

Component	Maintenance
HVAC	➤ Have a trained professional perform general maintenance on the HVAC system.

### **Electrical Accessories** (Interior)

Component	Maintenance
AC Switchboards	➤ Verify that the input voltage is correct and that the breakers and grounding are operating properly.
Grounding	<ul> <li>Verify continuity and inspect the connections for any corrosion.</li> <li>Verify the torque and tightness on punching terminals and screw terminals.</li> </ul>

# **Every 10 Years**

In addition to the preventive maintenance steps listed in Every 6 Months and Every (1) Year (and Every 2 Years, Every 3 Years, and/or Every 5 Years, if applicable), also perform the following actions.

## **Building (Exterior)**

Component	Maintenance
Walls	➤ Inspect hot-dip galvanized surfaces. They must be free of white or brown corrosion.

# **Maintenance Schedule**

Table 1 Required Maintenance Frequency (Sheet 1 of 2)

Description	6 mo	1 yr	2 yr	3 yr	5 yr	10 yr
Building (Exterior)						
Roof						
➤ Inspect membrane, flashings, gutters, and downspouts. Ensure that membrane is free of damage and that sealant joints are not scratched, cracked, or peeling. <sup>a</sup>	•					
Roof						
➤ Clean with water and remove foreign objects from the roof and gutters. <sup>b</sup>						
Fiberglass Accessories						
➤ Inspect door hood and louver hood and ensure that they are free of breaks or cracks, and that no bolts are loose or missing.			•			
➤ Ensure that the perimeter sealant is properly adhered. <sup>c</sup>						
Walls						
➤ If the POWERCORE building is in a corrosive environment, clean walls with water.			•			
Walls						
➤ Inspect wall coatings and joint sealants. Both should be free of cracks, scratches, chalking, peeling, and corrosion, and the joint sealants should be properly adhered.					•	
➤ Clean wall surfaces with water.						
➤ Clean and apply sealant on concrete walls. Use Durafloor 750 sealant (refer to manufacturer's instructions for use). <sup>d</sup>						
Walls						
➤ Inspect hot-dip galvanized surfaces. They must be free of white or brown corrosion.						•
Door						
➤ Inspect the exterior and interior paint. The paint must be free of cracks, peeling, chalking, scratches, and corrosion.				•		
➤ Inspect gaskets and ensure that they are free of cracks and are adhering properly to the door surface.						
Door						
➤ Lubricate the hinges and panic bar with 3-IN-ONE oil. Refer to manufacturer's instructions for use.					•	
Windows						
➤ Inspect glass and inside and outside seals and ensure that they are free of cracks, breaks, or scratches.						
➤ Inspect frames and frame screws and ensure that they are free of corrosion, paint peeling, and dents, and that no screws are missing or loose.						
Anchoring						
➤ Inspect bolts to ensure they are present and free of corrosion. Replace any missing or corroded bolts.					•	
Building (Interior)						
Floor						
➤ Clean with water and remove any foreign objects. <sup>b</sup>		•				
Floor					•	
➤ Inspect the paint and ensure it is free of scratches, peeling, or corrosion.					•	
Walls						
➤ Inspect all trims and flashing. Ensure that they are correctly installed and attached, and that the joint sealant is free of scratches and properly adhered.					•	
➤ Inspect the panels and ensure that they are free of dents or cracks.						

Table 1 Required Maintenance Frequency (Sheet 2 of 2)

Description	6 mo	1 yr	2 yr	3 yr	5 yr	10 yr
Electrical Accessories						
HVAC						
➤ Inspect the condensation drain system, louvers, and thermostat and ensure proper operation.		•				
➤ Clean all user-serviceable filters.						
HVAC						
➤ Replace all user-serviceable filters.						
➤ Inspect the exhaust fan louvers and ensure proper operation.				•		
➤ Verify that the input voltage is correct and that no frame screws are missing or loose.						
HVAC						
➤ Have a trained professional perform general maintenance on the HVAC system.					•	
Outdoor Lighting						
➤ Verify proper operation of the switch, photocell, and lamp.				•		
Receptacles						
➤ Ensure that the receptacles are free of cracks or debris, and that the output voltage and grounding is operating properly.				•		
Indoor Lighting				_		
➤ Verify proper operation of switches and lamps.				•		
Sensors						
➤ Verify proper operation of the door micro switch, hydrogen sensor, temperature sensor, motion sensor, and smoke detector.				•		
AC Switchboards						
➤ Verify that the input voltage is correct and that the breakers and grounding are operating properly.					•	
Grounding						
➤ Verify continuity and inspect the connections for any corrosion.					•	
➤ Verify the torque and tightness on punching terminals and screw terminals.						

a Also perform this maintenance after every significant weather event.
 b Avoid using harsh dirt removers or solvents.
 c Install seal model 550FC by 3M to replace any missing or damaged sealant (refer to manufacturer's installation instructions).
 d Only applies to concrete buildings.

## **Notes**

#### **⚠** WARNING

Have only qualified personnel service this equipment. If you are not qualified to service this equipment, you can injure yourself or others, or cause equipment damage.

#### **WARNING**

Operator safety may be impaired if the device is used in a manner not specified by SEL.

© 2016 by Schweitzer Engineering Laboratories, Inc. All rights reserved.

All brand or product names appearing in this document are the trademark or registered trademark of their respective holders. No SEL trademarks may be used without written permission. SEL products appearing in this document may be covered by U.S. and Foreign patents.

Schweitzer Engineering Laboratories, Inc. reserves all rights and benefits afforded under federal and international copyright and patent laws in its products, including without limitation software, firmware, and documentation.

The information in this document is provided for informational use only and is subject to change without notice. Schweitzer Engineering Laboratories, Inc. has approved only the English language document.

This product is covered by the standard SEL 10-year warranty. For warranty details, visit selinc.com or contact your customer service representative.

### **!** AVERTISSEMENT

Seules des personnes qualifiées peuvent travailler sur cet appareil. Si vous n'êtes pas qualifiés pour ce travail, vous pourriez vous blesser avec d'autres personnes ou endommager l'équipement.

#### **△**NAVERTISSEMENT

La sécurité de l'opérateur peut être compromise si l'appareil est utilisé d'une façon non indiquée par SEL.

### SCHWEITZER ENGINEERING LABORATORIES, INC.

2350 NE Hopkins Court • Pullman, WA 99163-5603 U.S.A. Tel: +1.509.332.1890 • Fax: +1.509.332.7990

selinc.com · info@selinc.com



