Most of the new equipment being manufactured today has built-in microprocessor chips which are extremely vulnerable to momentary surges or spikes that occur on an hourly basis. Transient voltage spikes are involved with an estimated 89% of all power disturbances. Lighting and utility switching equipment, air conditioners, pumps, microwaves, copy machines and power tools are just a few of the devices that can cause voltage spikes.

The effect that these spikes have on electrical equipment causes varying degrees of damage:

- **Destructive damage** is caused by transient spikes that are instantaneous, causing catastrophic failure (lightning or short circuit).
- **Dissipative damage** is the result of cumulative transient spikes that continue to erode the performance of equipment until it ultimately fails (fax machine ceases to function suddenly without damage symptoms).
- **Disruptive damage** occurs when electronic components attempt to process transient spikes as a valid logic command, resulting in system lock-up, malfunctions and lost or corrupted files (computer freezes up).

Even though a building may be protected by an outside SPD panel, additional protection is needed at the point-of-use on devices inside the building. While a SPD at the service entrance protects the building from surges entering the building from the outside, it does not protect equipment from surges that occur within a building. An estimated 63% of transient voltage spikes originate within buildings, leaving valuable equipment vulnerable to damage. With the addition of surge protection devices on the branch circuit, equipment is protected from damaging spikes and surges originating inside the building.

**Power related problems cost U.S. companies over $26 million a year**

---

**Applications**
- Office buildings
- Schools
- Residential homes
- Retail
- Computer facilities
- Commercial facilities
- Medical offices
- Institutions

---

**Surgebloc snap-in replacement module**

 requires no rewiring or interruption of power to restore protection.

---

**Transiente per hour by building type**

- Typical Residence
- Commercial Building
- Large Factory

Source: "Power Line Disturbances and your Power Bill" by Dr. C.W. Simmonds

---

Eaton’s wiring devices
Surge protection devices

---

EATON
Powering Business Worldwide
With its unique patented features Surgebloc saves time and money.

High impact-resistant thermoplastic mounting strap

Provides surge protection for hot to neutral, hot to ground and neutral to ground (L-N, L-G, N-G)

Automatic ground will ensure wallplate grounding in properly grounded metal enclosure

Grounding system to fully isolate from common ground on IG models

Patented replaceable module restores expired surge protection without interruption of power or need to remove and rewire device

Standard 6” (152.4mm) leads, stripped 0.50” (12.7mm)

Audible alarm signals when surge protection has expired and stays on until module is removed or replaced

Noise protection against EMI and RFI

Auto-grounding clip attached to strap meets NEC requirements

<table>
<thead>
<tr>
<th>Surgebloc</th>
<th>Description</th>
<th>Rating</th>
<th>V/AC</th>
<th>NEMA</th>
<th>Clamping Voltage</th>
<th>Joules/MCOV</th>
<th>Maximum Surge Current</th>
<th>Color suffix</th>
</tr>
</thead>
<tbody>
<tr>
<td>1208</td>
<td>Commercial grade, duplex receptacle</td>
<td>15</td>
<td>125</td>
<td>5-15R</td>
<td>400V</td>
<td>170J/1520V/AC RMS</td>
<td>12kA per mode</td>
<td>V, W</td>
</tr>
<tr>
<td>IG1208</td>
<td>Isolated ground commercial grade, duplex receptacle</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1210</td>
<td>Commercial grade, duplex receptacle</td>
<td>20</td>
<td>125</td>
<td>5-20R</td>
<td>400V</td>
<td>170J/1520V/AC RMS</td>
<td>12kA per mode</td>
<td>V, W</td>
</tr>
<tr>
<td>IG1210</td>
<td>Isolated ground commercial grade, duplex receptacle</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

340 Joules, max. surge current - 12kA per mode, cULus listed to UL 1449 3rd edition, file no. E15058

Replacement Surgebloc module

<table>
<thead>
<tr>
<th>Catalog no.</th>
<th>Description</th>
<th>Color suffix</th>
</tr>
</thead>
<tbody>
<tr>
<td>1209</td>
<td>Replacement module for 1208 &amp; 1210</td>
<td>V, W</td>
</tr>
</tbody>
</table>

UL recognized accessory, file no. E102018

Color ordering information
For ordering devices, include Catalog no. followed by the color suffix:
V (Ivory), W (White)

Compliances, specifications and availability are subject to change without notice.