The DMP 505 Series Power Supplies are regulated, power limited, switching power supplies. They are rated for 12 VDC at 5 Amps maximum.

Each power supply includes a transformer, battery leads and is mounted in an enclosure. The 505 Series power supply also provides connections for AC input, DC output, and a standby battery. Each power supply also includes a low AC input LED indicator, a low standby battery LED indicator, AC trouble and battery trouble relays, and on-board transient protection for the AC input and the DC output.

The 505-12LX includes two Model 867 Style W Notification Modules.

### Compatibility
All DMP control panels

### What is Included?
- One 505 Series PCB Mounted in Enclosure
- One Wire-in Transformer
- Battery Leads (One Pair)
- 505-12LX Only: Two Model 867 NAC Modules

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**WIRE THE 505 SERIES POWER SUPPLY**

Refer to Figure 2, 3, and 4 for wiring details. Refer to 505 Series standalone wiring diagrams LT-0454 and LT-0849 for specific wiring applications.

⚠️ **Caution:** Be sure to observe polarity when connecting wires to avoid risk of personal injury and equipment damage.

**Connect AC Power**
Connect the transformer to an unswitched 120 VAC 60 Hz power source with at least 1.5 Amps of available current. Start by connecting AC power to the black and white transformer leads, then connect AC power to the terminal block. Be sure to secure the green wire lead to an earth ground.

**Connect Batteries**
Connect the black battery lead to the negative battery terminal and the red battery lead to the positive battery terminal. Only use sealed lead-acid batteries and replace every 3 to 5 years. For information about calculating standby battery power, refer to Additional Information.

**Connect AC and Battery Trouble Relays**
Connect AC TRBL and BATT TRBL supervisory relay outputs marked NC (normally closed) and C (common) to a control panel or an 867 NAC zone.

**Connect DC Output**
Measure and verify output voltage before connecting devices to ensure proper equipment operation. Connect devices that require power to output terminals marked - DC +.
Input: 120 VAC 60 Hz 1.5 Amps Unswitched

120 VAC 60 Hz 1.5 Amps

Green LED

Red LED

Battery Start

To Earth Ground

To panel tamper zone

For Access Control Applications (UL 294) install a Model 307 Tamper Switch.

Optional DMP Notification Modules.

Figure 2: 505-12/505-12LX Wiring

Output: 16 VAC @ 100 VA

12 VDC @ 5 Amps

Figure 3: 505-12L/505-12A Wiring

350 or 350A Enclosure

Figure 4: Battery Harness Wiring
NAC Module Connections
To wire NAC Modules, refer to the 865 Notification Module Installation Sheet (LT-0179), 866 Notification Module Installation Sheet (LT-0059), or 867 Notification Module Installation Sheet (LT-0178).

Tamper Switch Connection
To connect a tamper switch to a 505 Series enclosure, connect a 2-pin tamper wire connector from the switch to the TAMPER header on the panel.

ADDITIONAL INFORMATION
Wiring Specifications
Use 18 AWG or larger for all power connections. Ensure there is a minimum 0.25” space to keep power limited wiring separate from non-power limited wiring (120 VAC/60 Hz input, battery wires). Properly ground the power supply before connecting any devices or applying power to the unit.

Standby Battery Power Calculations
The following calculation defines the total number of amp-hours required for standby battery power. After calculating the total required amp-hours, install the appropriate number of batteries that slightly exceeds the total. Refer to Table 1.

1. Add the power supply operating current to all other standby current values to obtain the total standby current.
2. Multiply the total standby current by the number of standby hours required to obtain the total standby milliamp-hours required.
3. Multiply the total alarm current by 0.25 (0.25 = 15 minute alarm), then add the product to the total standby milliamp-hours required to obtain the total required milliamp-hours.
4. Multiply the total required milliamp-hours by 0.001 to convert the value to total required amp-hours.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Voltage</th>
<th>LED</th>
<th>Status</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC Trouble</td>
<td>Approx. 102 VAC</td>
<td>AC LED (GRN)</td>
<td>ON</td>
<td>AC Good</td>
</tr>
<tr>
<td>Battery Trouble</td>
<td>Below 11.8 VDC</td>
<td>AC LED (GRN)</td>
<td>OFF</td>
<td>AC Bad</td>
</tr>
<tr>
<td>Battery Restoral</td>
<td>Above 12.4 VDC</td>
<td>DC LED (RED)</td>
<td>ON</td>
<td>AC Good, Battery Good</td>
</tr>
<tr>
<td>Battery Cutoff</td>
<td>Below 10.2 VDC</td>
<td>DC LED (RED)</td>
<td>OFF</td>
<td>AC Good, Battery Bad</td>
</tr>
</tbody>
</table>

NAC Modules Compatibility
The Model 505 Series is compatible with the Wheelock MT-12/24 Multi-tone horn at 12 VDC.

Power Limited
All circuits on the Model 505 Series comply with the requirements for inherent power limitation and are Class 2 except the red battery wire.
COMPLIANCE LISTING SPECIFICATIONS
For UL 1481 Power Supplies for Fire Protective Signaling, apply the following maximum battery standby Ampere Hours to reach 24 hours battery backup.

- **Battery Standby**: Maximum 38.5 Ah
- **Output Voltage**: 12 VDC
- **Output Current**: 1.25 Amp Standby, 5 Amp Alarm

**Note**: A maximum of 38.5 Ah is approximately equal to six 7.0 Ah Batteries and a maximum of 49.2 Ah is approximately equal to seven 7.0 Ah Batteries.

For UL 603 Power Supplies for Burglary Alarm System applications and UL 294 Power Supplies for Access Control System applications, the 505 Series Power Supply has a voltage range of 10.76 V to 12.36 V. For UL 294 Access Control Applications install the Model 307, 307-S, or 3012 Tamper Switch.

FCC INFORMATION
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

The antenna used for this transmitter must be installed to provide a separation distance of at least 20 cm (7.874 in.) from all persons. It must not be located or operated in conjunction with any other antenna or transmitter.

Changes or modifications made by the user and not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

**Note**: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

### 505-12 POWER SUPPLY

#### Specifications
<table>
<thead>
<tr>
<th>Voltage/Current Input</th>
<th>120 VAC @ 1.5 Amps max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage/Current Output</td>
<td>12 VDC @ 5 Amps max.</td>
</tr>
<tr>
<td>Internal Current Draw</td>
<td>200 mA</td>
</tr>
<tr>
<td>Secondary Power Battery</td>
<td></td>
</tr>
<tr>
<td>Charge Current</td>
<td>1.5 Amps max.</td>
</tr>
<tr>
<td>Enclosure</td>
<td>505-12/505-12LX</td>
</tr>
<tr>
<td>Material</td>
<td>20-gauge, cold-rolled steel</td>
</tr>
<tr>
<td>Colors</td>
<td>Gray (G) or Red (R)</td>
</tr>
<tr>
<td>Dimensions</td>
<td>15.75” H x 12.5” W x 4.75” D</td>
</tr>
</tbody>
</table>

| Enclosure               | 505-12L                  |
| Material                | 18-gauge, cold-rolled steel |
| Colors                  | Gray (G) or Red (R)      |
| Dimensions              | 17.5” W x 13.5” H x 3.5” D |

| Enclosure               | 505-12A                  |
| Material                | 18-gauge with 16-gauge door |
| Colors                  | Gray (G)                 |
| Dimensions              | 17.5” W x 13.5” H x 3.75” D |

### Certifications
- California State Fire Marshal (CSFM)
- FCC Part 15
- National Fire Protection Association (NFPA)
- New York City (FDNY COA #6167)
- ANSI/UL 1481 Power Supplies for Fire Protective Signaling
- ANSI/UL 603 Power Supplies for Burglary Alarm Systems
- ANSI/UL 294 Power Supplies for Access Control System Units
- Level I: Destructive Attack and Line Security
- Level IV: Endurance and Standby Power

### Compatibility
All DMP Control Panels