Rain Bird® Decoder Systems

**Design Criteria for Decoder Systems**

- **Number of Addressed Decoders**
  - FD-101: 15 maximum
  - FD-102: 250 maximum
  - FD-401: 15 maximum
  - FD-601: 250 maximum
- **Current Draw**
  - Per decoder: 1.0 mA at rest, 20 mA active
  - Per FA-MB: 0.5 mA each
- **Maximum Number of Addresses**
  - Per two-wire path: 2
  - Per SDI interface unit: 15
- **Maximum Wire Lengths for Secondary Path Wire Runs**
  - 2.5 mm²: 10 AWG
  - 2.0 mm²: 12 AWG
  - 1.5 mm²: 14 AWG
  - 1.25 mm²: 16.0 AWG
- **Ohms/Km**
  - Standard: 1.62 Ohms/Km
  - Maximum: 3.8 Ohms/Km
- **Maximum Critical Path Lengths for Two-Wire Paths**

---

**Characteristics and Benefits**

- Easy, cost-effective installation with up to 80% less wire.
- Simple to troubleshoot with built-in diagnostics at the central control.
- Easy expandability, aesthetically pleasing and reduced opportunity for vandalism.

---

**Maximum Wire Lengths for Secondary Path Wire Runs**

<table>
<thead>
<tr>
<th>Wire Size</th>
<th>Secondary Wire Run Lengths</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.4 AWG</td>
<td>1000 ft</td>
</tr>
<tr>
<td>2.0 AWG</td>
<td>1500 ft</td>
</tr>
<tr>
<td>2.5 AWG</td>
<td>2000 ft</td>
</tr>
<tr>
<td>3.0 AWG</td>
<td>2500 ft</td>
</tr>
</tbody>
</table>

---

**Grounding System** (Ground grid resistance of 5 Ohms or less — Most effective central control grounding grid resistance.

- LSP-1 surge protection built-in.

---

**Standard Rain Bird Central Control Grounding System** (Ground grid resistance of 5 Ohms or less is recommended).