Overview

The Apprentice 3 programmable lighting control panel is an energy saving lighting controller. You can network up to 48 control points and 64 LightSync™ devices per network and connect via easy to use RJ-45 ports. Connect and program panels using a USB port on a laptop and our free Apprentice 3 software. Add-on cards are easy to install and add the following capabilities: BACnet, LonWorks, N2, MODBUS, TCP/IP, or modem interface, DMX control and DTMF telephone switching. Also optional remote mount 0-10V isolated dimming control modules for standard daylight harvesting operations.

Features

- **365-day programmable Lighting Control Panel**
- **All products Made in the USA**
- **LightSync™ switch and accessory ready**
- **Network up to 48 relay control points**
- **Available in 4, 8, 16 and 32 relay panel sizes**
- **Uses 16 Amp latching relay**
- **Optional add-on modules available, including 0-10V dimming module**
- **Programming software provided with every panel**
- **USB, modem and TCP/IP connectivity available**

- **Made in the USA** relays and hardware.
- **Programming Options** are done with an integrated keypad with 4-line LCD display or using Apprentice 3 Pro software via USB or TCP/IP.
- **LightSync Data Line Device Ready** utilizing RJ45 connectors and standard CAT-5 cabling for data line.
- **Network capability** allows you to connect panels for up to **48 outputs** and **64 LightSync** devices per network.
- **Internet Capability** to program, monitor, and control panels across the network or internet with the addition of a TCP/IP module.
- **Plug-load compatible** 16 Amp lighting relay.
- **Relay Groups** consist of any relay on the network and can be assigned to any of the **48 available groups** — controlled by any timer, switch, or other external commands.
- **Relay Presets** can be programmed from any relay ON/OFF patterns and be assigned to any of the **48 available presets** — controlled by any timer, switch, or other external commands.
- **Timer Scheduling** for **48 available timers** that can turn relays ON or OFF for Time-of-Day, Astronomical times, and Open/Close.
- **Clock Functions** include Automatic Astronomical calculation of Sunrise and Sunset and Adjustable Daylight Saving Time and Enable/Disable.
- **Switching Inputs** accepts virtually any type of switch input, momentary or maintained, 2- or 3-wire switch and directly powers data line switches and devices.
- **Add-On Modules** can be added to each controller, including BACnet IP, BACnet MSTP, Modbus RTU, Modbus ASCII, N2, LonWorks, DMX512, TCP/IP, DTMF telephone switching and modem. Also optional remote mount 0-10V isolated dimming control modules for 48 zones.
- **Expansion panels** with 4 to 16 relays are available to expand the number of relay outputs on a standard panel.

INTELLIGENT LIGHTING CONTROLS, INC.
www.ilc-usa.com
Specifications

Relays:
- **1 Pole relays** (1PR) with control for 16 Amp loads up to 347 VAC, used for electronic ballasts, ballasts, resistive and general loads.
- **2 Pole relays** (2PR) with the same footprint as the single pole, control of 16 Amp loads up to 347 VAC per pole used for electronic ballasts, ballasts, resistive and general loads, 208/240/480 VAC 2-pole circuits.
- **Plug-load compatible** 16 Amp lighting relay

Safeguards:
- **Power surge and spike suppression** up to 123 volts on the 24 VAC power input
- **Memory retention** for firmware and programming up to 50 years
- **Real-Time-Clock time retention** 45 days or greater without power

Physical:
- NEMA1 galvanized enclosure, optional NEMA 4 and 4X enclosure available
- Double sided construction for wiring on both sides
- Provided with pre-drilled mounting holes
- Painted removable hinged locking door for flush or surface mounting
- High voltage barriers separate Normal/Emergency and Class 2 wiring

Electrical:
- 120/277 VAC or optional 120/347 VAC
- 1 Amp

Capacities:
- 4, 8, 16, 24 or 32 relays

Operating Environment:
- Location: Interior space
- Operating Temp.: 0° to 40° C
- Humidity: 10% - 90% Non-condensing
- Vibration: Stationary

Certifications and Approvals:
- UL CUL
- FCC Part 15
- FCC Part 68
- Title 24
- ASHRAE compliant

Ordering

**Ordering Notes:**
- Only 1 standard panel allowed per network.
- Expansion panels can only have 4, 8, or 16 relays/panel.

<table>
<thead>
<tr>
<th>Enclosure Type</th>
<th>Relays</th>
<th>Width</th>
<th>Height</th>
<th>Depth</th>
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<tr>
<td>Apprentice3-4</td>
<td>4</td>
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<td>12 in.</td>
<td>4 in.</td>
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<tr>
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<tr>
<td>Apprentice3-24</td>
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<td>42 in.</td>
<td>4 in.</td>
</tr>
<tr>
<td>Apprentice3-32</td>
<td>32</td>
<td>16 in.</td>
<td>42 in.</td>
<td>4 in.</td>
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</tbody>
</table>

**Ordering:**

- **Panel:**
  - Standard panel (with display and keypad) or a network expansion panel (no display or keypad).
  - A = Standard panel
  - X = Expansion panel

- **Transformer Voltage:**
  - 120 = 120/277 VAC
  - 347 = 120/347 VAC

- **Series:**
  - 1PR: 1 pole
  - 347 VAC MAX

- **Number of 4-input hardwire switch interface boards.** 4 size will accept one board, 8 will accept two, 16 will accept four, 24 will accept six, and 32 will accept eight.'