

# The Apprentice II Panel



## Programmable Lighting Control

- 365-day programmable Lighting Control Panel
- All products Made in the USA
- LightSync™ switch and accessory ready
- Network up to 48 control points
- Available in 4, 8, 16 and 32 relay panel sizes
- Uses reliable zero-cross Softcross™ relay
- Optional add-on modules available
- Programming software provided with every panel
- USB, modem and TCP/IP connectivity available

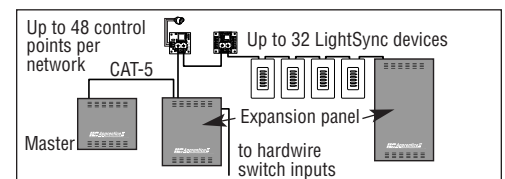


## Overview

The Apprentice II programmable lighting control panel is an energy saving lighting controller. You can network up to 48 control points and 32 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 II 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.

## Features

- **Made in the USA** relays and hardware.
- **Programming Options** are done with an Integrated keypad with 4-line LCD display or using Apprentice II 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 **32 Light-Sync** devices per network.
- **Internet Capability** to program, monitor, and control panels across the network or internet with the addition of a TCP/IP module.
- **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.
- **Expansion panels** with 4 to 16 relays are available to expand the number of relay outputs on a standard panel.



INTELLIGENT LIGHTING  
CONTROLS, INC.

5229 Edina Industrial Boulevard  
Minneapolis, Minnesota 55439  
Phone 952 829 1900  
FAX 952 829 1901  
1-800-922-8004  
www.ilc-usa.com

## Specifications

### Relays:

- **Single pole** zero-cross Softcross™ relays control 120 or 277VAC @ 20 Amps for ballasts and resistive loads. Available in normally open or normally closed.
- **1 Pole relays** with the same footprint as the single pole control up to 347VAC @ 20 Amps for ballasts, resistive and general loads. Available with normally open contacts.
- **2 Pole relays** with the same footprint as the single pole control up to 277VAC per pole @ 20 Amps for ballasts, resistive and general loads. Available with normally open contacts.

### Safeguards:

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

### Physical:

- NEMA 1 galvanized enclosure
- 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, 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

Order the ILC Apprentice II controller

**ILC-APII** - 1 - 2 - 3 - 4 - SR1 - NO - 5 - SR1 - NC - 6 - 1PR - 7 - 2PR - 8

Sample: Order No. ILC-APII-04-0-A-0-4-0-0-0 = ILC Apprentice II standard controller in a size 4 enclosure with 120/277 VAC, standard Softcross NO relays.

- ① Consult the chart to determine the enclosure size required. All enclosures are NEMA-1 type with hinged locking cover standard. Fill in the size panel your installation requires; 4, 8, 16 or 32.

Enclosure Size Options				
Enclosure Type	Relays	Width	Height	Depth
Apprenticell-4	4	14 in.	12 in.	4 in.
Apprenticell-8	8	14 in.	16 in.	4 in.
Apprenticell-16	16	14 in.	24 in.	4 in.
Apprenticell-32	32	16 in.	42 in.	4 in.

- ② Number of additional 4-input hardwire switch interface boards (if required – panels ship with one AP4I 4-input board installed); 08 will accept one additional, 16 will accept three, and APII-32 will accept seven. (not applicable for 04 size)

- ③ Indicate if this is to be a standard (with display and keypad) or a network expansion panel (no display or keypad).  
A= Standard controller panel  
X= Network expansion panel (4,8, or 16 size)

- ④ Control Transformer Voltage  
Blank= 120/ 277 VAC  
347= 120/ 347 VAC

### SoftCross Relay(s)

- ⑤ Series: SR1-NO= single pole 277VAC MAX  
Default state: NO= Normally Open  
NOTE: Relays are shipped as NO unless otherwise specified

SR1-NO Quantity:

- ⑥ Series: SR1-NC= single pole 277VAC MAX  
Default state: NC= Normally Closed  
NOTE: Relays are shipped as NO unless otherwise specified

SR1-NC Quantity:

### Relay(s)

- ⑦ Series: 1PR = 1 pole 347VAC MAX  
1PR Qty:

- ⑧ Series: 2PR = 2 pole 277VAC MAX/Pole  
2PR Qty:

*A full line of compatible products including control software, photosensors, a wide variety of momentary or maintained switches, custom engraved plates and more are available. Consult factory or your local ILC Representative for more information.*



INTELLIGENT LIGHTING  
CONTROLS, INC.

5229 Edina Industrial Boulevard  
Minneapolis, Minnesota 55439  
Phone 952 829 1900  
FAX 952 829 1901  
1-800-922-8004  
www.ilc-usa.com