IPAC-GL1

Integrated Professional Automation Computer for Green Light Power Switching

The Crestron IPAC is a 2-Series control processor designed for wall mount installation. Its front panel controls and LCD display deliver a user-friendly interface for out-of-the-box system setup. Built-in Ethernet, Cresnet, RS-232, relay, and sensor inputs provide direct connectivity for interfacing with all kinds of devices, controls, and networks. The onboard e-Control® Web server allows for complete integration as part of a facility-wide managed control network.

Out-of-the-Box Lighting Control

The GL1 version of IPAC comes preconfigured for use as the central control processor for a Green Light Power Switching system. Right out of the box, the IPAC-GL1 affords easy setup and programming for a complete switching system consisting of:

Up to 210 switched loads

CNX-B, C2N-DB, and Cameo keypads

41 occupancy sensors and photosensors

100 time clock events

Keypads with as many as 12 buttons each can be programmed easily to control lighting loads and other functions. As well, the seven function buttons on the front panel of the IPAC-GL1 may also be programmed. Custom backlit labeling of the front panel buttons is facilitated using an assortment of pre-printed labels or Crestron Engraver software.

Lights can be programmed to turn on and off automatically using the built-in astronomical time clock feature. Lighting events may be programmed to occur at specific times or at an offset from sunrise or sunset. Occupancy sensors and photosensors may also be implemented to enable automatic on/off lighting control based on room occupancy and ambient light levels.

Custom Programmability

With additional custom programming, the IPAC-GL1 can support virtually any functionality imaginable. It works seamlessly with Crestron's entire line of touchpanels, wireless remotes, lighting dimmers, shade controllers, thermostats, and more. It can also interface with third-party devices and systems such as security and access controls, surveillance cameras, and

HVAC for a fully integrated solution. Contact Crestron Sales Support Services for more information.

The IPAC-GL1 is designed to be mounted in a standard 3-gang electrical box independent of the lighting panels, allowing it to be installed wherever it is most advantageous for the project.

> Wall mount lighting control processor
> Crestron 2-Series control engine
> Easy system programming via LCD front panel
> 7 programmable buttons with LED feedback
> Customizable backlit button labels
> CEC Title 24 listed
> Astronomical time clock
> Occupancy sensing and daylight harvesting
> 2 RS-232, 4 digital/analog input, & 4 relay control ports
> Cresnet and 10/100 Ethernet communications
> Onboard e-Control® Web server
> RoomView® and SNMP remote management
> SSL (Secure Sockets Layer) network protection
> Extensively programmable via PC software
> 3-gang wall-mountable
> Available in white or black

SPECIFICATIONS

Processor
: CPU: 32-bit Freescale ColdFire® Microprocessor:

Memory
SDRAM: 32 MB
NVRAM: 1 MB
: Flash: 8 MB:

CRESTRON®

Power Failure Memory: 10 years

Time Clock
Accuracy: ±1 minute per year

Operating System
Real-time, preemptive multi-threaded/multitasking kernel; FAT32 file system with long names; includes default program for Green Light Power Switching systems

Ethernet
10/100BaseT, auto-negotiating, full/half duplex, static IP or DHCP, DNS, SSL, TCP/IP, UDP/IP, CIP, SMTP, SNMP, built-in Web server and e-mail client; supports Crestron **e-Control®2 XPanel** and **RoomView®** applications

Connectors
: **NET:** (2) sets of (4) captive screw terminals;
Cresnet port and 24 Volt DC power input with parallel pass-thru;
Connects to GLPS switching panels, GLS sensors (via **GLS-SIM** modules), and keypads (**CNX-B**, **C2N-DB**, **C2N-CBD-TS**, or **C2N-CBF-T**);
Default program supports up to 9 panels with 42 loads each, 40 sensors (via 20 GLS-SIM modules), and 16 keypads via Cresnet:
: **LAN:** (1) 8-wire RJ45 with 2 LED indicators;
10/100BaseT Ethernet port;
Green LED indicates link status;
Yellow LED indicates Ethernet activity:
Ground: (1) flying lead, chassis ground wire
: **COM 1*:** (5) captive screw terminals;
Bidirectional RS-232 port;
Up to 115.2k baud; hardware and software handshaking support:
COM 2*: (3) captive screw terminals;
Bidirectional RS-232 port;
Up to 115.2k baud; software handshaking only
RELAYS 1 - 4*: (6) captive screw terminals comprising (4) normally open, isolated relays (every two share a common);
Rated 1 Amp, 30 Volts AC/DC;
MOV arc suppression across contacts
INPUTS 1 - 4: (5) captive screw terminals comprising (4) digital or analog input ports (referenced to GND);
Digital Input: Rated for 0-24 Volts DC, input impedance 20k ohms, logic threshold 1.25 Volts DC;
Analog Input: Rated for 0-10 Volts DC, protected to 24 Volts DC maximum, input impedance 20k ohms;
Programmable 5 Volts, 2k ohms pull-up resistor per pin;
Default program supports connection of one occupancy sensor or photo sensor (Input 1), one Override signal (Input 2), and Lockout signals for the IPAC front panel or external keypads (Inputs 3 and 4)
Computer: (1) USB Type B female (behind front cover);
USB 1.1 computer console port (cable included)

LCD Display
Green LCD dot matrix, 128 x 64 resolution, adjustable LED backlight

Controls and Indicators
Selection Knob: (1) continuous turn rotary encoder, adjusts menu parameters
ENTER: (1) pushbutton, selects underlined item and stores settings
HOME: (1) pushbutton, returns to the home page
BACK: (1) pushbutton, returns to the previous page
CANCEL: (1) pushbutton, cancels current action without saving
HELP: (1) pushbutton, opens context-sensitive help screen
Soft Keys: (4) pushbuttons for activation of LCD driven functions
Function Buttons: (7) Programmable pushbuttons with backlit label slot
Feedback Indicators: (7) Programmable red LEDs (1 per Function Button)
HW-R: (1) Recessed miniature pushbutton for hardware reset (reboots the processor)
SW-R: (1) Recessed miniature pushbutton (behind front cover) for software

Light Sensor
Photosensor, programmable for auto-dimming of front panel label backlight and other functions

IR Receiver*
: **Reception Frequency:** 36 to 38 kHz IR:
: **Formats:** Crestron format, RC5:
Range: Up to 50 ft line of sight (typical), dependent upon angle, obstructions, IR interference, and IR remote signal strength

Power Requirements
: **Cresnet Power Usage:** 10 Watts (0.42 Amps @ 24 Volts DC);
GLA-PWS50 or equivalent power supply required (sold separately)
: **Available Cresnet Power:** 40 Watts using **GLA-PWS50** power supply (sold separately):

Environmental
: **Temperature:** 32° to 104°F (0° to 40°C):
: **Humidity:** 10% to 90% RH (non-condensing) :
Heat Dissipation: 20 BTU/hr

Enclosure
Faceplate: High-impact plastic, black or white, with polycarbonate label overlay
Chassis: Injection-molded plastic with steel mounting plate
Mounting: Requires 3-gang plaster ring or electrical box (≥2.5 inch deep recommended)

Dimensions
Height: 4.50 in (11.5 cm)
Width: 6.70 in (17.1 cm)
Depth: 2.23 in (5.7 cm)

Weight
1.4 lb (0.64 kg)

Testing & Compliance
UL Listed, FCC Part 15, CEC Title 24
* *This feature is not utilized by the default program.*

Available Models
IPAC-GL1-B-T: Integrated Professional Automation Computer for Green Light Power Switching Systems, Black, Textured. Requires external power supply (not included). [Discontinued]
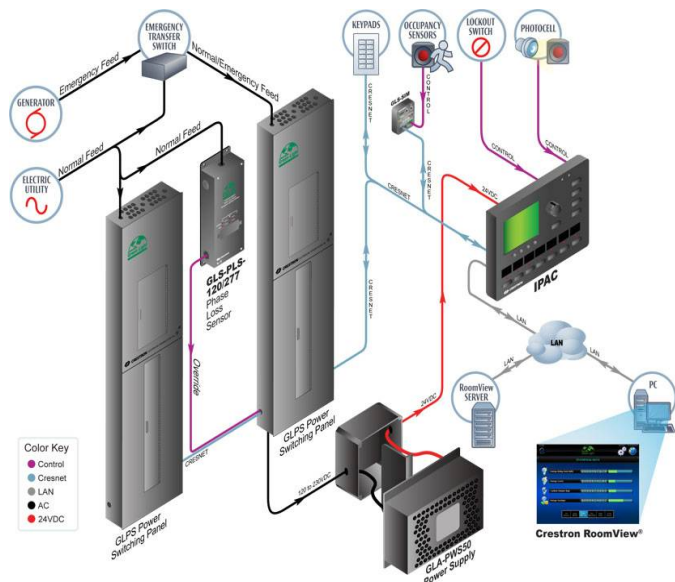**IPAC-GL1-W:** Integrated Professional Automation Computer for Green Light Power Switching Systems, White. Requires external power supply (not included). [Discontinued]

Available Accessories
GLA-PWS50: Wall Mount 50 Watt Cresnet Power Supply
GLA-PWSI50: Wall Mount 50 Watt Cresnet Power Supply – International Version [Only for: IPAC-GL1-B-T,]
SMK-MP/MPC/IPAC: Swivel Mount Kit
TTK-MP/MPC/IPAC-B-T: Table Top Kit, Black
TTK-MP/MPC/IPAC-W: Table Top Kit, White

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Typical IPAC-GL1 Connections