

Pyrotronics System 3

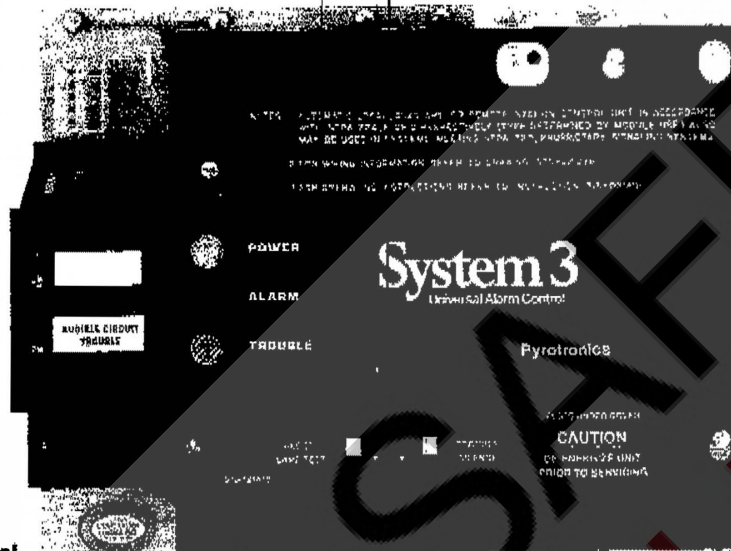
Universal Alarm Control

Control Panel MODEL CP-30

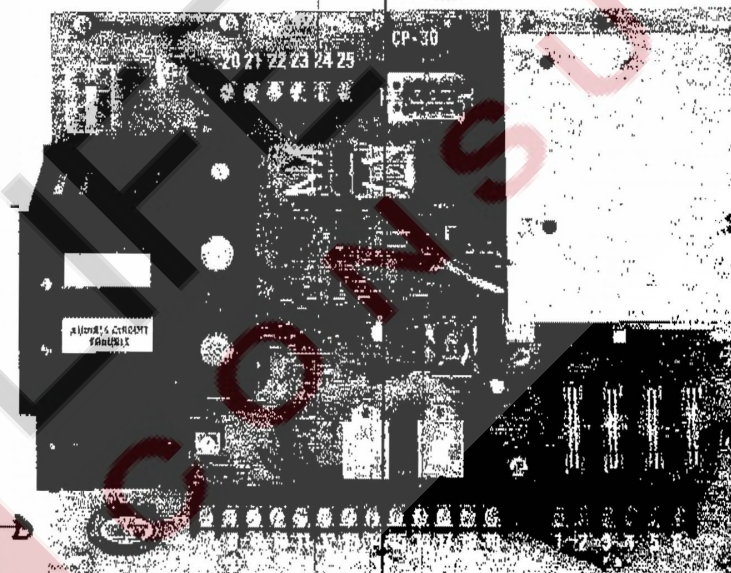
CATALOG
NUMBER

3050

Engineer and Architect Specifications



CP-30 Control Panel



CP-30 Control Panel
with Cover Removed

Features

- U.L. Listed
- Power For Over 200 Early Warning Detectors
- Basic One-Zone System
- Expandable
- Alarm Overrides Trouble
- Ground Detection
- Supervised Alarm Relay Coil
- Power For Two Audible Circuits

Description

The Control Panel, Model CP-30 is the basic control unit for System 3 Universal Alarm Control. It is of solid state circuitry and is designed for use in Commercial, Institutional, Life Safety, and Industrial applications. It is approved for service in accordance with NFPA Standards 72A, 72B, 72C, and 72D, and is Underwriters Laboratories Inc. listed.

The Model CP-30 with basic power supply provides circuitry for one supervised detector circuit accommodating any



Pyrotronics

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Cedar Knolls, New Jersey 07927

Pyrotronics



PROTECTIVE SYSTEMS

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Supersedes Sheet
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Pyr-A-Larm low voltage detector, manual station, or contact type input devices. It also includes one supervised audible signal circuit utilizing either 120 Vac or 24 Vdc devices, and will power one additional type AE or AA supervised audible signal circuit module.

Three (3) visual system indicators are mounted on the face of the CP-30, a white "Power On" lamp, a red "Alarm" lamp, and a yellow "Trouble" lamp. To monitor the single, built-in detector circuit, a red LED zone alarm indicator and a yellow LED zone trouble indicator are supplied. An additional yellow LED audible signal circuit trouble indicator is also provided.

Two momentary contact manual switches are mounted on the CP-30, one serving as a combination "Reset/Lamp Test" function, while the other permits "Trouble Silence." An internal trouble signal sounding device is provided and a remotely located trouble silence switch, light, and audible signal is optional.

Operation

Power

The Model CP-30 operates from a three-wire, 120/240 Vac supply with grounded neutral, with battery standby as an option. A white power lamp is illuminated to show that power is normal. Each input is separately fused within the unit.

Loss of the main operating power on Line 1 is signaled by the system audible and yellow visual trouble indicators. Restoration of power returns the panel to normal condition. When battery standby is specified, loss of main power results in an audible and visual trouble signal, and the batteries provide power to the system.

The system power supply is capable of furnishing sufficient power for seven (7) detector circuits and two (2) audible signal circuits. The seven (7) detector circuits may be the single fire zone provided in the CP-30 control, plus any mix of up to six (6) additional fire zones, security circuits or non-fire monitoring circuits. Auxiliary 24Vdc power for activation and control of other system modules is provided at the CP-30 control panel. 120 Vac or 24 Vdc power for operation of audible signal modules is also available as a power source.

Detector Circuit

The single zone detector circuit will accommodate Pyr-A-Larm ionization detectors, Models DI-2, DI-4, and DI-7L, photoelectric detector Model DS-2, flame detector Model DF-1, and thermal detectors Models DT. Shorting type contact devices such as manual stations and waterflow switches can also be accommodated and intermixed with the above on the same circuit as desired. The circuit provides Class "B" supervision.

Alarm

An alarm signal is initiated by the detector circuit described above. When this occurs, the red system "Alarm" lamp and the red LED zone alarm indicator are illuminated and the audible signal circuit, either 120Vac or 24Vdc may be energized. An alarm signal will override a trouble condition. A single ground fault does not prevent alarm operation.

In addition, terminals for 24 Vdc connection to a remote visual annunciator and an alarm signal output are also energized.

A set of alarm operated SPDT contacts (rated 120Vac, 3 amp) is also provided.

The system is reset to normal by operating the "Reset/Lamp Test" switch.

Trouble

A trouble condition, which will illuminate the yellow system "Trouble" lamp and sound the built-in audible trouble signal will be caused by any of the following:

- removal of a detector or contact device from the detector circuit
- an open in the detector circuit
- an open in a municipal tie line or remote station circuit
- removal of a system module
- loss of main power (when equipped with emergency power)
- a ground fault on any detector circuit, audible signal circuit, or dc power line within the system.

If the trouble originates in the detector circuit, the yellow LED zone trouble indicator will also illuminate.

A set of trouble operated SPDT contacts (rated 120 Vac, 3 amp) is provided. The audible trouble signal can be silenced by operating the "Trouble Silence" switch. The "Trouble Silence" switch is momentary. The panel returns to normal upon correction of the trouble condition.

Note: Terminals are provided on the CP-30 control to duplicate the trouble indicators and controls at a remote point. These include the visual and audible signals and the silence switch.

Flexibility

The use of the Pyr-A-Larm Control Panel, Model CP-30 permits expansion of the system capability to incorporate additional functions over and above the single zone actuation circuit and visual and audible annunciating devices provided with the basic panel. The CP-30 will accommodate a combination of any of the following options, provided the total current demand does not exceed 4 amp. (Refer to the applicable module catalog sheet to determine exact requirements).

- 2-stage alarm
- Multiple alarm priorities
- Master Code
- Municipal tie with disconnect light and switch
- Remote station connection with disconnect light and switch.
- Time limit cut out with indicator
- Supplementary relays
- Battery Standby
- Double supervision, power failure annunciation
- Security circuits
- Non-fire monitoring
- Subsequent alarm
- Reconfirmation

- Class A detector and audible signal circuits
- Disconnect switch
- Manual audible signal silence
- Multiple zones (6 additional-maximum)

Architect's Specifications

The control panel for the alarm system shall be a Pyr-A-Larm Model CP-30. It shall be listed by Underwriters Laboratories Inc.

The panel shall provide power and necessary components for the operation of a basic one-zone, supervised detector circuit and one supervised audible signal circuit utilizing either 120 Vac or 24 Vdc devices. The detector circuit shall accommodate ionization, photoelectric, flame, or thermal detectors as well as shorting type contact devices intermixed as desired on the same circuit.

The Model CP-30 shall operate from a three-wire 120/240 Vac supply. Each input shall be separately fused within the panel. It shall include lamps for system power, alarm, and trouble as well as LED indicators for zone alarm, zone trouble, and audible signal circuit trouble. Momentary contact switches shall be provided for "Reset/Lamp Test" and "Trouble Silence" which shall silence the internal trouble signal sounding device. Alarm receipt shall override trouble.

Ordering Information

The Model CP-30 occupies space normally taken by four (4) modules and must be located in the upper right-hand position of any type EA enclosure. This should be considered when sizing the enclosure. Also specify whether the CP-30 is to be factory adjusted for ac or dc audible signaling by adding suffix "A" for ac or "D" for dc. When a BC-30 Battery Charger/Transfer module is used, audible signals must be 24 Vdc units and the CP-30 should be ordered with no suffix letter.

Model No.	Description	Shipping Wt. Lbs.
CP-30	Control Panel w/Power Supply (for use w/Battery Charger/Transfer	12
CP-30A	Control Panel w/Power Supply (for ac audible signals, includes Jumper Plug, Model JP-1	12
CP-30D	Control Panel w/Power Supply (for dc audible signals, includes Jumper Plug, Model JP-2	12

The basic power supply shall be capable of powering over two hundred (200) early warning detectors and two (2) audible signal circuits. Additional circuitry and visual signaling for this capability shall be provided by Pyr-A-Larm "add-on" modules and enclosures as are necessary. Interconnection of these modules to the CP-30 shall be by ten-pin plug and harness assemblies which shall provide system power, supervision, lamp-testing functions, and such other circuitry as is necessary for an operable system.

The control panel shall have one (1) set of normally open and normally closed alarm operated relay contacts and one (1) set of normally open and normally closed trouble operated relay contacts. All contacts shall be rated at 120 Vac 3 amp. The alarm relay coil shall be supervised. In addition, the panel shall have built-in ground detection as well as plug-in connectors for emergency power. It shall be arranged so that alarm signal annunciation shall take precedence over a trouble signal. Terminals shall be provided so that the trouble indicators and controls can be located remotely.

The Model CP-30 shall permit expansion of system capability to incorporate any combination of Pyr-A-Larm System 3 modules not exceeding a maximum current demand of 4 amp.

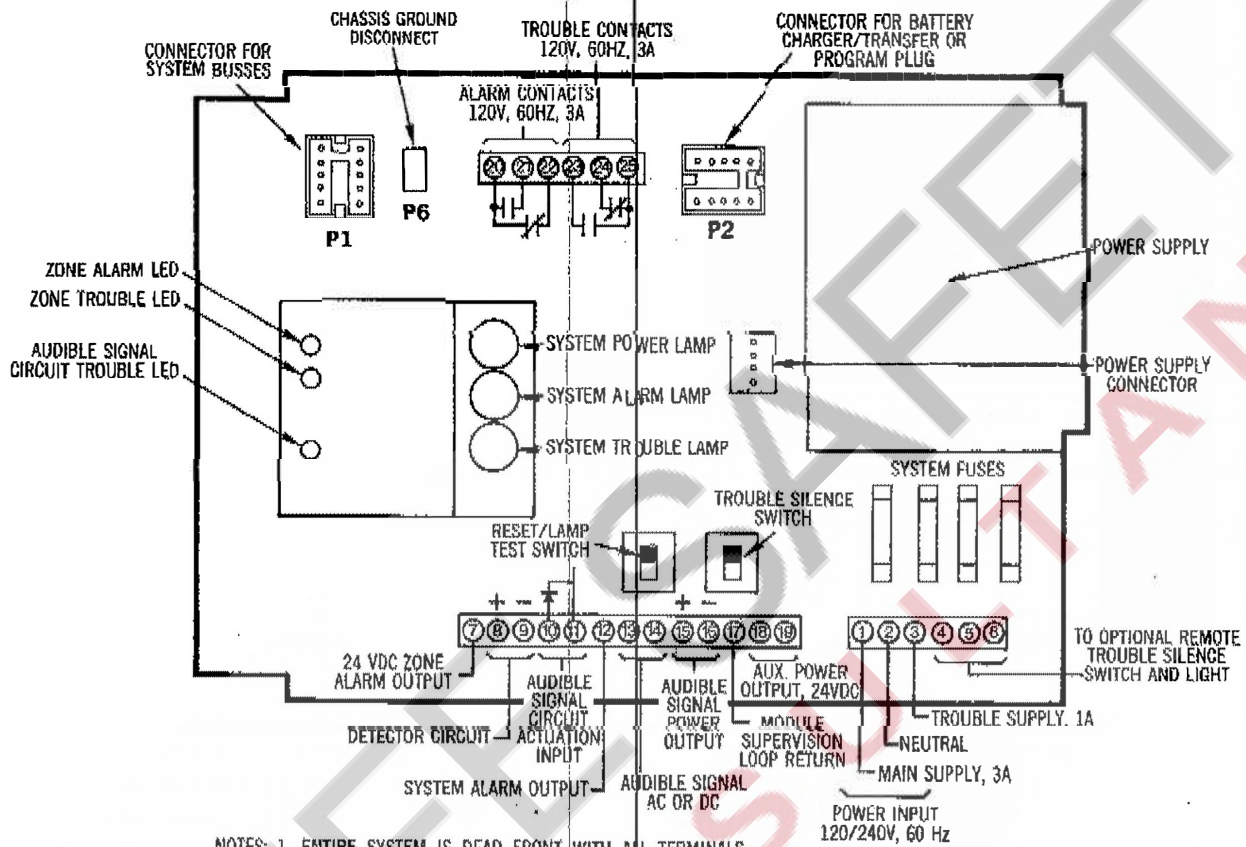
Electrical Information

Power Requirement: 120/240 Vac, 60 Hz, three-wire, 2 amp.

The Model CP-30 is normally mounted on rail/brackets, separately priced, for installation in the EA enclosures. Each enclosure requires a rail/bracket assembly kit of appropriate size. The size of the enclosure therefore must be noted at the time of order. Rail/bracket assembly kits are shown below. Also refer to catalog sheet 3325.

Rail/Bracket Assembly Kit	Enclosure	Kit Shipping Wt. Lbs.
EK-30	EA-30	5
EK-31	EA-31	6
EK-32	EA-32	10
EK-33	EA-33	14
EK-35	EA-35	18

Typical Wiring



- NOTES: 1. ENTIRE SYSTEM IS DEAD FRONT WITH ALL TERMINALS, FUSES, ETC. COVERED SO AS TO PROTECT THE OPERATOR.
2. TERMINALS 10 AND 11 PROVIDE PARALLEL INPUTS WITH A BLOCKING DIODE FOR RELAY ACTUATION.