

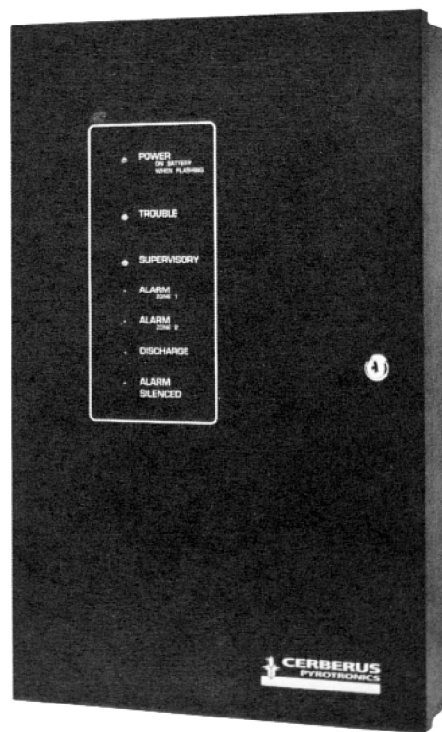
CP-2ER Control Panel

ENGINEER AND ARCHITECT SPECIFICATIONS

MODEL CP-2ER

- Class A* or B** Options
- Cross Zoned Detection Circuits
- Power Limited Option on Notification Appliance Circuits
- 19 LED's Indicating Various Normal & Off Normal Conditions
- Discharge Delay Time Selection
- 24 or 60 Hour Battery Back-Up
- Manual or Automatic Release
- FM-200™ Release Disconnect Switch
-  Listed, as Complying with Either NFPA 72, 12A, 13 or 2001
- FM, CSFM and NYMEA Approval

* NFPA Style D ** NFPA Style b



Introduction

The Cerberus Pyrotronics Control Model CP-2ER is a two-zone local control unit which meets the requirements of NFPA 72 or a two-zone releasing device panel approved in accordance with NFPA 72, 12A, 13 and 2001 for cross zone protection. When the CP-2ER Control Panel is used as a releasing device, two Class A* or Class B** detection circuits are arranged so that both zones must be activated in order to discharge the agent automatically into the protected area.

The Control Panel provides for the external connection of supervised manual discharge switches for releasing of agent as well as several other supervised input and output functions. Essentially, every supervised feature has its own separate fault indicator for ease of troubleshooting the system, should a fault occur.

Displayed through the front cover are the usual visual indicators for power, system alarm, and system trouble, as well as several additional specific function indicators. Within the Control Panel are a fire alarm RESET/LAMP TEST switch, an ALARM SILENCE switch, a SUPERVISORY SILENCE switch, a TROUBLE SILENCE switch and a RELEASE DISCONNECT switch. The separate visual fault indicators are displayed within the panel for all supervised features.

Addition of power limited Module PLM-35 allows power limited wiring of alarm indicating circuits. This permits alarm circuit wiring to be run in same conduit with initiating device wiring or with other power limited circuit wiring. Isolated relay contacts are provided for: System alarm— DPDT, System trouble— SPDT, Predischage/discharge— SPDT, and normally open.

Description/Operation

1. Automatic Discharge Operation

A single zone alarm condition results in:

1. Alarm lock-in of that zone
2. Visual alarm indication of that zone.
3. General alarm condition of panel which includes:
 - a. Change of state of fire alarm relay contacts.
 - b. General alarm audible circuit activated.

Upon activation of both zones, the discharge delay sequence begins. The discharge delay period may be preselected by the Rotary Switch.

As the discharge delay period begins (both zones alarmed), and the general alarm audible circuit is de-energized, the predischage relay contacts (TB3, terminals 10 through 14) change state (See Option No. 4). The predischage audible

circuit, along with its associated visual indicator, is cycled at a 2 Hz rate with a 50 % duty cycle during the selected discharge delay period. At the conclusion of the discharge delay period, the agent release circuit is energized for approximately 1 minute, while the discharge audible is energized in a steady-on condition until either it is silenced or the panel is reset to a non-alarm condition.

2. Manual Discharge Operation Selection

- Operation of the MANUAL DISCHARGE switch results in a discharge delay period, as selected, before actual discharge begins, provided the delay selected is 30 seconds or less. When the discharge delay selector is set for more than 30 seconds, the MANUAL DISCHARGE switch operation gives a 30-second delay period maximum.
- Operation of the MANUAL DISCHARGE switch results in immediate discharge, regardless of delay period selected.

3. Abort Station Operation Selection

- When used, abort function is operational if, only one, but not two, of the detection device circuits has activated. Release of the ABORT switch, after both detection circuits have activated, results in the regular preselected discharge delay period as selected.
- Discharge may be aborted at any time before selected discharge delay period has expired and discharge has begun. Release of the ABORT switch after both detection circuits have activated results in continuation of the unexpired discharge delay period as selected.
- Discharge may be aborted at any time before selected discharge delay period has expired. Release of the ABORT switch after both detection circuits have activated results in a complete discharge delay period as selected.

4. Predischarge/Discharge Delay Operation Selection

- Relay contacts change state on any of the following conditions without any delay period.
 - Both detection circuits have activated
 - MANUAL DISCHARGE switch has been operated.
 - Normally open MANIFOLD DISCHARGE monitor switch has closed.
- Relay contacts change state at conclusion of selected discharge delay period, when operated by activating both detection circuits, or by activating manual discharge switch.

5. The agent release disconnect switch is a normally closed single-pole switch in the release circuit. Moving the switch to its disconnect position causes a "Agent Discharge Trouble" indication and prevents a discharge. This switch is used during servicing of the system as a safeguard against unwanted discharge.

6. NFPA 72, 12A, 13 or 2001

As shipped from the factory, the CP-2ER is arranged to meet the NFPA 72 requirements; that is, an alarm in either of the two initiating zones will cause general alarm to sound. Once the general alarm is silenced, an alarm in the other initiating zone will cause the general alarm to sound again. The replacement of the service selection plug will automatically change the alarm program to comply with NFPA 12A, 13 and 2001 requirements.

ing device service in accordance with NFPA 72 (Local fire alarm code), 12A (Releasing of Halon 1301), 13 (Preaction) and 2001 (Releasing of clean agent). It shall provide "Class A" (NFPA Style D) and "Class B" (NFPA Style B) detection options and 10 selectable discharge delay options up to 45 seconds.

It shall provide the following abort options:

- Abort operational only if only one detection zone has activated. Full discharge delay follows release of abort switch after both zones have activated.
- Abort operational anytime before discharge delay has expired. Continuation of unexpired discharge delay follows release of abort switch.
- Same as #2, except full discharge delay follows release of abort switch.

It shall provide the following manual discharge options:

- Operation of manual discharge switch results in delay period prior to discharge.
- Operation of manual discharge switch results in immediate discharge.

For Use With Alarm System:

The control panel for the manual or automatic fire alarm system shall be Cerberus Pyrotronics Model CP-2ER. It shall be FM approved and UL listed as a local control unit in accordance with NFPA 72, 12A, 13 and 2001. It shall provide "Class A" (NFPA Style D) and "Class B" (NFPA Style B) options on two initiating device circuits.

Electrical Information

Input 120 VAC (102-132) 50/60 Hz.

Three (3) wire, 2 amp. max.

Two (2) with ground

Ordering Information

Note: When ordering specify whether batteries shall be 24 or 60 hour standby capacity.

Model No.	Description	Shipping Weight
CP-2ER	Control Panel	*31 lbs. (14.1 kg.)
BP-24**	24 Hr. Battery Pack for CP-2ER 175-084476 (5AH)	10.6 lbs. (4.8 kg.)
BP-60**	60 Hr. Battery Pack for CP-2ER 175-084477 (10AH)	19.4 lbs. (8.8 kg.)

* Excluding Batteries

** Batteries must be ordered separately for CP-2ER.
1 pc. BP-24 or 1 pc. BP-60 must be ordered for battery backup.

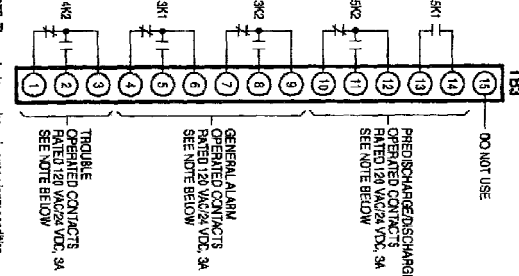
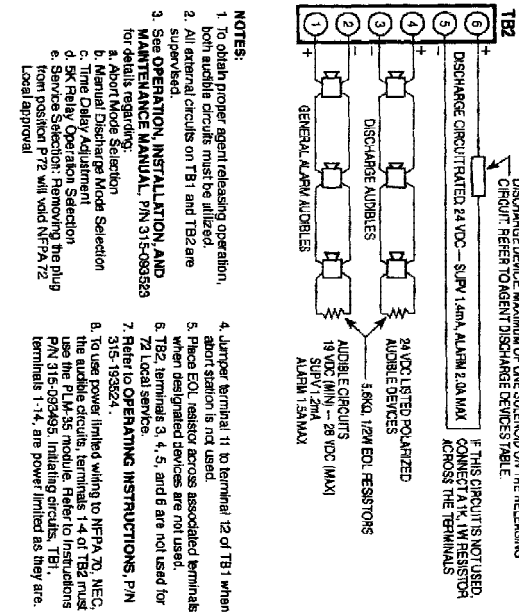
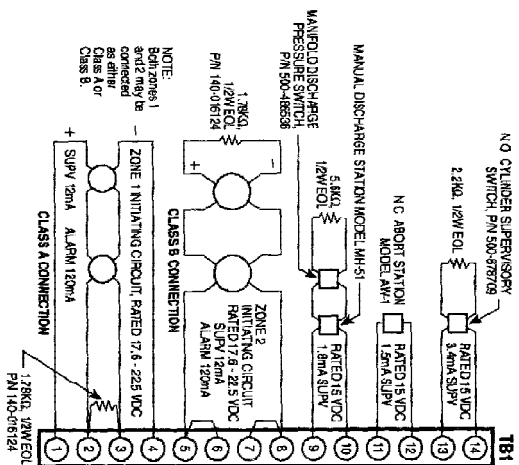
Engineer and Architect Specifications

For Use With Extinguishing System:

The control panel for release of the extinguishing system shall be a Cerberus Pyrotronics Model CP-2ER. It shall be FM, CSFM and NYMEA approved and UL listed for releas-

Model CP-2ER CONNECTION DIAGRAM

Approved for Manual or Automatic alarm for the following categories: Local control unit in accordance with NFPA 72 Local; suitable for NFPA connection; suitable also for releasing device service in accordance with NFPA 12A, 13, and 2001. Refer to Note 3a.



Model	Stroke (mm)	Stroke (in)	Stroke (mm)
CS-2A	14.3	0.563	14.3
CS-2B	14.3	0.563	14.3
CS-2C	14.3	0.563	14.3
CS-2D	14.3	0.563	14.3
CS-2E	14.3	0.563	14.3
CS-2F	14.3	0.563	14.3
CS-2G	14.3	0.563	14.3
CS-2H	14.3	0.563	14.3
CS-2I	14.3	0.563	14.3
CS-2J	14.3	0.563	14.3
CS-2K	14.3	0.563	14.3
CS-2L	14.3	0.563	14.3
CS-2M	14.3	0.563	14.3
CS-2N	14.3	0.563	14.3
CS-2O	14.3	0.563	14.3
CS-2P	14.3	0.563	14.3
CS-2Q	14.3	0.563	14.3
CS-2R	14.3	0.563	14.3
CS-2S	14.3	0.563	14.3
CS-2T	14.3	0.563	14.3
CS-2U	14.3	0.563	14.3
CS-2V	14.3	0.563	14.3
CS-2W	14.3	0.563	14.3
CS-2X	14.3	0.563	14.3
CS-2Y	14.3	0.563	14.3
CS-2Z	14.3	0.563	14.3

DETECTORS
 May use up to 30 smoke detectors (selected from any of the compatible detectors listed below) or may use sounding devices, detector relays, or remote lamps (Refer to the related detector instructions).

AGENT DISCHARGE DEVICES

Application	Model	Standard Model	Max Line Resistance
NFPA 11A (P/N 11A)	Protonics	500-08881, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08882, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08883, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08884, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08885, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08886, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08887, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08888, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08889, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08890, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08891, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08892, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08893, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08894, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08895, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08896, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08897, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08898, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08899, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08900, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08901, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08902, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08903, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08904, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08905, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08906, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08907, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08908, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08909, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08910, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08911, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08912, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08913, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08914, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08915, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08916, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08917, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08918, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08919, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08920, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08921, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08922, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08923, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08924, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08925, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08926, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08927, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08928, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08929, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08930, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08931, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08932, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08933, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08934, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08935, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08936, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08937, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08938, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08939, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08940, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08941, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08942, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08943, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08944, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08945, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08946, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08947, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08948, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08949, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08950, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08951, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08952, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08953, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08954, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08955, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08956, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08957, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08958, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08959, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08960, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08961, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08962, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08963, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08964, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08965, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08966, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08967, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08968, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08969, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08970, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08971, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08972, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08973, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08974, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08975, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08976, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08977, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08978, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08979, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08980, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08981, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08982, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08983, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08984, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08985, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08986, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08987, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08988, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08989, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08990, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08991, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08992, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08993, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08994, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08995, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08996, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08997, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08998, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-08999, 24V	80m
NFPA 11A (P/N 11A)	Protonics	500-09000, 24V	80m