

AUG 31 1992

Appendix I



May 5, 1977



Radioisotopes Licensing Branch
Division of Fuel Cycle and Material Safety
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Amendment to USNRC License 12-16356-01E to permit distribution of modified Type 500 Ionization Smoke Detector Assembly.

Gentlemen:

Enclosed are two sets of drawings detailing a proposed amendment to our distribution license 12-16856-01E. This amendment is to permit distribution of a modified version of our type 500 Ionization Smoke Detector Assembly as well as the un-modified assembly. These modifications are to facilitate use of automatic equipment in assembly of the chamber and complete smoke detector.

The modified design is to be designated Type 500A.

Enclosure 1 shows the parts and assembly as presently licensed. Enclosure 2 shows the same parts and assembly with the desired revisions. The drawings are:

1. Ionization Smoke Detector Assembly (Drawing No. 1)
The method of holding together the assembly is changed from four 4-40 screws to two 4-40 screws and two 1/8" diameter rivets. These rivets are made of nylon coated aluminum. The change is to keep the chamber together during subsequent assembly operations of the entire smoke detector. In addition it renders the assembly more tamper-proof.
2. Sense Chamber (Drawing No. 2)
Change the diameter of two of the holes in the edge from 0.162" to 0.128" for the rivets.
3. Reference Chamber (Drawing No. 3)
Change the diameter of two of the holes in the edge from 0.162" to 0.128" for the rivets.

continued

9610180216 960819
PDR RC * PDR
SSD

MAY 25 1977

May 5, 1977

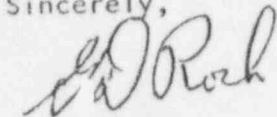
Radioisotopes Licensing Branch
Page 2

4. Chamber Insulator (Drawing No. 4)
Change shape as shown to provide registration of the part for automatic assembly.
5. Top Collector (Drawing No. 5)
Remove material along chord to provide registration of the part for automatic assembly.
6. Bottom Collector (Drawing No. 6)
No change

All other requirements and specifications of the license remain unchanged.

If further information is required, please advise and we will take immediate steps to comply.

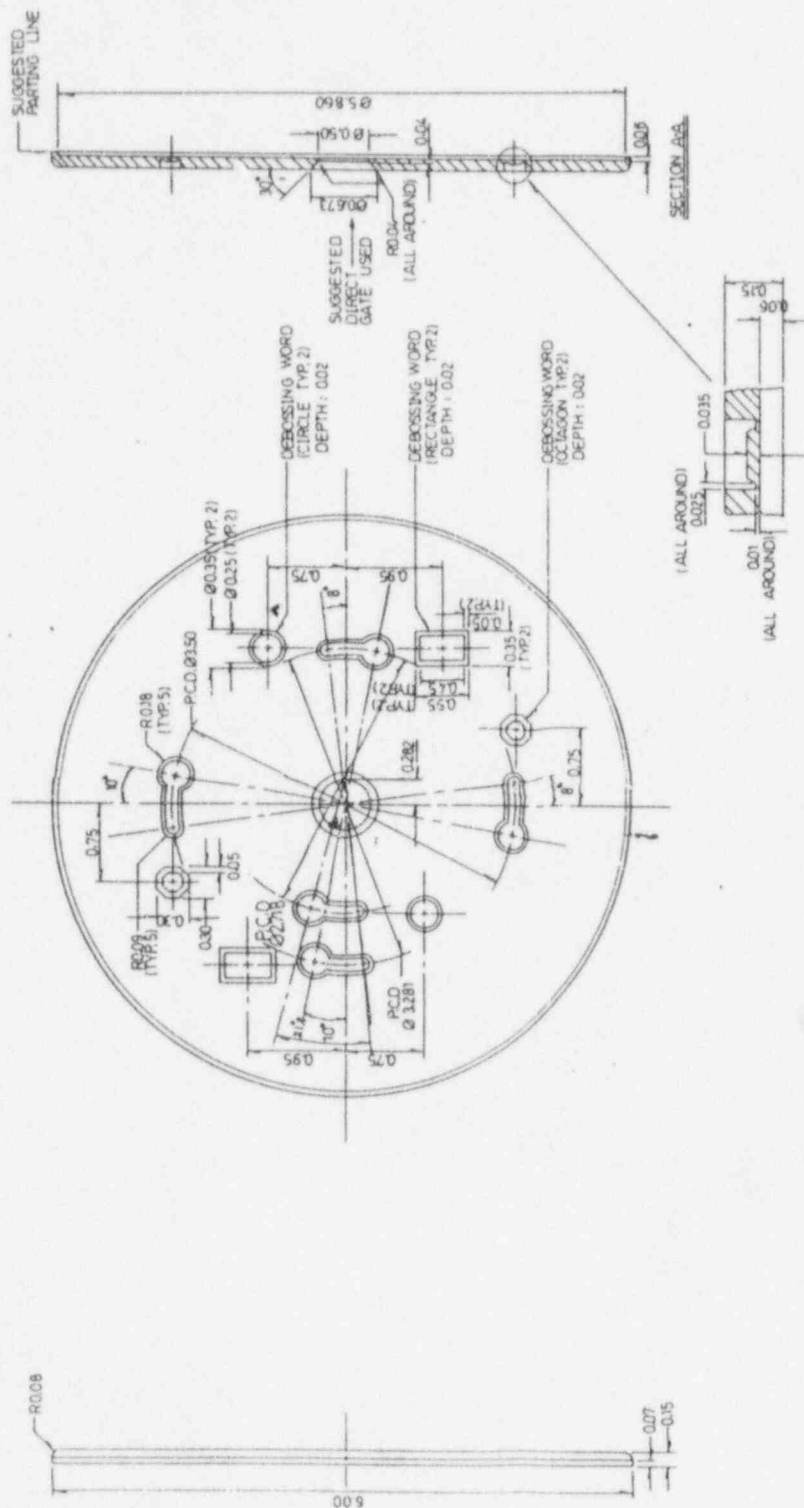
Sincerely,



G.D. Rork
Director of Research

GDR/bc
Enclosure

cc: L.D. Larsen
Dr. James E. Johnson
Colorado State University
Biochemistry and Radiation Biology Bldg.
Fort Collins, Colorado 80521



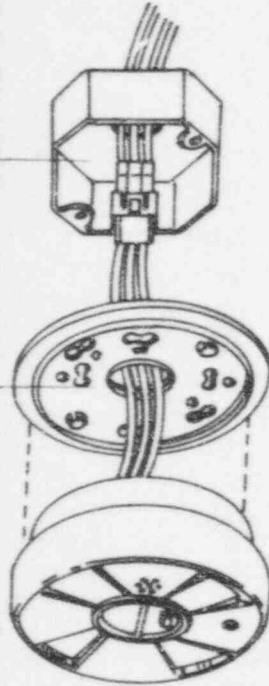
UNLESS SPECIFIED, ALL DIMENSIONS ARE IN INCHES TOLERANCES ON DIMENSIONS: .005 ANGLES: .125°	TM	CRANKING	13389	MANAGEMENT INVESTMENT & TECHNOLOGY CO., LTD.
MATERIAL: NORVAL SE 800 WHITE	USED ON	0415	ADAPTOR PLATE	
	1255	CM	SCALE 1:1	WELL
	ENG	ENG	DRWG BY C	PR
			SHEET 04	1205-214

PROFESSIONAL SMOKE ALARM

120 Volt A/C

This product is designed to detect products of combustion using the ionization technique. It contains radioactive material, 0.9 microcurie of Americium 241. Distributed under U.S. NRC License No. 12-16856-01E. This detector contains radioactive material and has been manufactured in compliance with U.S. NRC safety criteria in 10 CFR 32.27. The purchaser is exempt from any regulatory requirement.

Easy Installation



Made in China
180184-001

FEATURES:

AC POWER LIGHT (red)
(1) flashes once every 30/60 seconds indicating that 120 Volt AC power is being delivered to alarm horn.
(2) continuously on indicates which unit in the multi-station installation is originating the alarm.

TEST SILENCE tone which silences alarm horn and horn.



Easy installation with
AC wire-in QUICK CONNECTOR
(included)



FYRNETICS, INC.
1021 Davis Road
Elgin, Illinois 60123

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FYRNETICS INC.

PROFESSIONAL SMOKE ALARM
9 VOLT BATTERY POWERED FOR CEILING OR WALL

Professional Smoke Alarm

TEST BUTTON To check horn, batteries, light and alarm circuits.

HUSH® CONTROL. To temporarily silence false alarms caused by nuisance smoke from cooking, fireplace or cigarettes. Smoke alarm resets automatically after approx. 7 minutes. In case of dense smoke, the LIFESAVER smoke detector senses it, and overrides the HUSH control and sounds the alarm.

SAFETY LIGHT
This powerful light automatically turns on when the alarm sounds to help you find your way to safety and signal for help. Flashing light also provides visual low battery indicator.

- **HUSH® control to temporarily silence false alarms.**
- **Safety light activates to find your way and signal for help.**
- **Five year limited warranty.**
- **Exceeds or meets all normal fire code standards.**
- **Awakens you quickly with a loud, piercing, pulsating horn (85 decibels) and safety light.**
- **Low battery indicator "beeps" and flashes safety light when battery replacement is necessary.**

Made in China



FYRNETICS INC.

This product is designed to detect products of combustion using the ionization technique. It contains radioactive material 0.9 microcurie of Americium 241. Distributed under U.S. NRC License No. 2-16856-01E. This detector contains radioactive material and has been manufactured in compliance with U.S. NRC safety criteria in 10 CFR 32.27. The purchaser is exempt from any regulatory requirements.

9 VOLT BATTERY POWERED FOR CEILING OR WALL

LIFESAVER®

**Professional
Smoke Alarm**

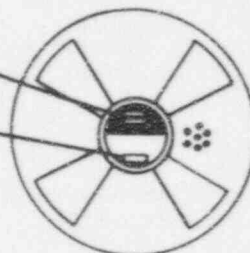
Model 0906

**HUSH®
CONTROL**

To silence false
alarms.

TEST BUTTON

To check horn,
battery and
alarm circuits.



HUSH® CONTROL. Just press the button to temporarily silence false alarms caused by nuisance smoke from cooking, fireplace or cigarettes. Smoke alarm resets automatically after approx. 7 minutes. In case of dense smoke, the LIFESAVER smoke detector will sense it, and override the HUSH control and sound the alarm.

- Five year limited warranty.
- Exceeds or meets all normal fire code standards.
- Awakens you quickly with a loud, piercing, pulsating horn (85 decibels)
- Low battery indicator "beeps" when battery replacement is necessary.

Made in China

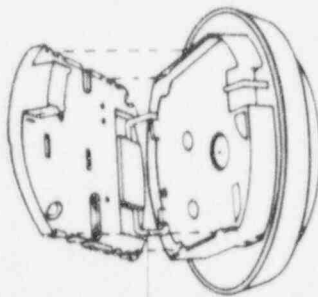


FYRNETICS INC.

1021 Davis Rd. Elgin, Illinois 60120

EASY TO INSTALL

Special mounting plate (hinged) for easy installation and access. Mounting plate dimensions: 3 1/4" x 5 1/4". Detector conveniently slides off base, disconnecting AC power.



LOW BATTERY INDICATOR

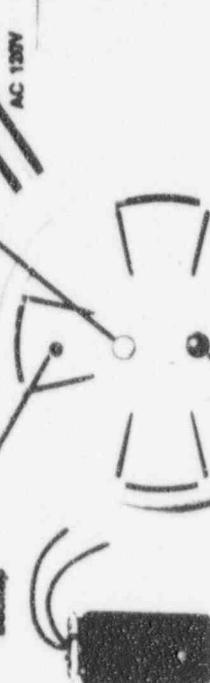
Horn "beeps" when battery replacement is necessary, or when battery has been removed.

FEATURES:

AC POWER LIGHT (green)
When on, indicates 120 Volt AC power is being delivered to smoke alarm.

TEST BUTTON Tests smoke alarm circuitry and horn.

DC Battery Backup



HUSH® CONTROL allows you to temporarily silence false alarms caused by nuisance smoke from cooking or smoking for approx. 7 minutes. In case of dense smoke, the LIFESAVER smoke alarm will sense it and override the HUSH control and sound the alarm.

ALARM LIGHT (red)
Rapid flashing light indicates which unit in the multi-station installation is originating the alarm.

Made in China
160183-001

FYRNETICS, INC.
1055 Stevenson Ct./Ste 102W
Roselle, IL 60172

PROFESSIONAL SMOKE ALARM

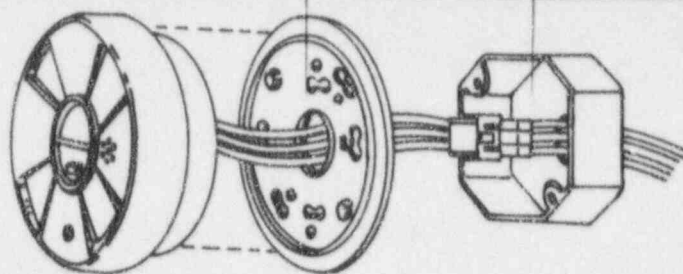
120 VOLT AC/9 VOLT DC POWERED FOR CEILING OR WALL

This product is designed to detect products of combustion using the ionization technique. It contains radioactive material (americium-241) Distributed under U.S. NRC License No. 12-16856-01E. This detector contains radioactive material and has been manufactured in compliance with U.S. NRC safety standards 10 CFR 32.27. The purchaser is exempt from any regulatory requirements.

PROFESSIONAL SMOKE ALARM 120 Volt A/C

This product is designed to detect products of combustion using the ionization technique. It contains radioactive material, 0.9 microcurie of Americium 241. Distributed under U.S. NRC License No. 12-16856-01E. This detector contains radioactive material and has been manufactured in compliance with U.S. NRC safety criteria in 10 CFR 32.27. The purchaser is exempt from any regulatory requirement.

Made in China
100184-001



Easy Installation

QUICK CONNECTOR

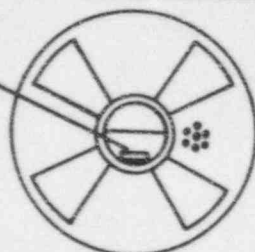
Easy installation with AC wire-in QUICK CONNECTOR (included).

FEATURES:

- 1. Push button test switch
- 2. Battery backup power supply
- 3. 120 VAC, 60 Hz power supply
- 4. 10 year life expectancy
- 5. No need for batteries
- 6. No need for wiring
- 7. No need for maintenance
- 8. No need for replacement
- 9. No need for repair
- 10. No need for replacement
- 11. No need for repair
- 12. No need for replacement
- 13. No need for repair
- 14. No need for replacement
- 15. No need for repair
- 16. No need for replacement
- 17. No need for repair
- 18. No need for replacement
- 19. No need for repair
- 20. No need for replacement

FYRNETICS, INC.
1021 Davis Road
Elgin, Illinois 60123

TEST BUTTON
to check horn,
battery and
alarm circuits.



- Five year limited warranty.
- Exceeds or meets all normal fire code standards.
- Awakens you quickly with a loud, piercing, pulsating horn (85 decibels).
- Test button lets you check alarm circuit.
- Low-battery indicator "beeps" when battery replacement is necessary.



FYRNETICS INC.

PROFESSIONAL SMOKE ALARM
9 VOLT BATTERY POWERED FOR CEILING OR WALL

RV-suitable for use in recreational vehicles.

Professional Smoke Alarm

TEST BUTTON To check horn, batteries, light and alarm circuits.

HUSH® CONTROL. To temporarily silence false alarms caused by nuisance smoke from cooking, fireplace or cigarettes. Smoke alarm resets automatically after approx. 7 minutes. In case of dense smoke, the LIFESAVER smoke detector senses it, and overrides the HUSH control and sounds the alarm.

THE LIGHT
This powerful light automatically turns on when the alarm sounds to help you find your way to safety and signal for help. Flashing light also provides visual low battery indicator.

- **HUSH® control** to temporarily silence false alarms.
- **Safety light** to help you find your way and signal for help.
- **Five year limited warranty.**
- **Exceeds or meets all normal fire code standards.**
- **Awakens you quickly with a loud, piercing, pulsating horn (85 decibels) and safety light.**
- **Low battery indicator "beeps" and flashes safety light when battery replacement is necessary.**

Made in China



FYRNETICS INC.

9 VOLT BATTERY POWERED FOR CEILING OR WALL
This product is designed to detect products of combustion using the ionization technique. It contains radioactive material 0.9 microcurie of Americium 241. Distributed under U.S. NRC License No. 1215556-01E. This detector contains radioactive material and has been manufactured in compliance with U.S. NRC safety criteria in 10 CFR 32.27. The purchaser is exempt from any regulatory requirements.

LIFESAVER®

**Professional
Smoke Alarm**

Model 0806

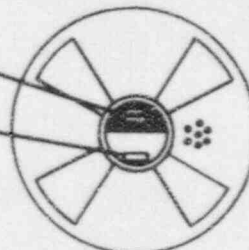
HUSH®

CONTROL

To silence false
alarms.

TEST BUTTON

To check horn,
battery and
alarm circuits.



HUSH® CONTROL. Just press the button to temporarily silence false alarms caused by nuisance smoke from cooking, fireplace or cigarettes. Smoke alarm resets automatically after approx. 7 minutes. In case of dense smoke, the LIFESAVER smoke detector will sense it, and override the HUSH control and sound the alarm.

- Five year limited warranty.
- Exceeds or meets all normal fire code standards.
- Awakens you quickly with a loud, piercing, pulsating horn (85 decibels).
- Low battery indicator "beeps" when battery replacement is necessary.

Made in China



FYRNETICS INC.

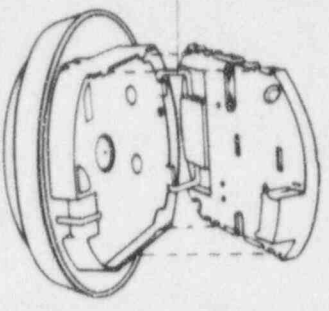
1021 Davis Rd., Springfield, MA 01104

PROFESSIONAL SMOKE ALARM 120 VOLT AC/9 VOLT DC POWERED FOR CEILING OR WALL

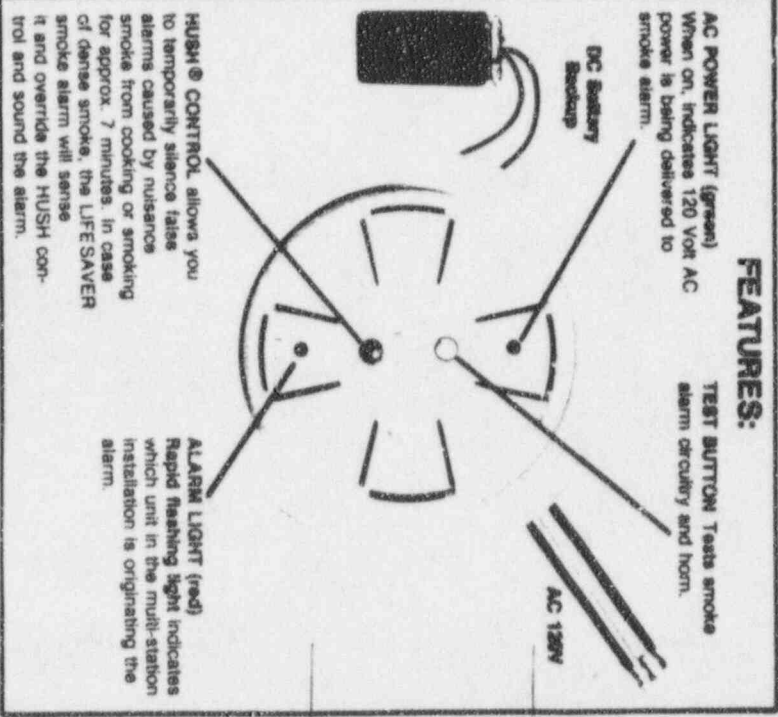
This product is a fire detector and is not a fire extinguisher. It is designed to detect smoke and sound an alarm. It is not intended to be used as a fire extinguisher. It is not intended to be used as a fire extinguisher. It is not intended to be used as a fire extinguisher.

Made in China
160183-001

LOW BATTERY INDICATOR
Horn "beeps" when battery replacement is necessary, or when battery has been removed.



EASY TO INSTALL
Special mounting plate (hinged) for easy installation and access.
Mounting plate dimensions: 3 1/4" x 5 1/8". Detector conveniently slides off base, disconnecting AC power.



FYNNETICS, INC.
1055 Stevenson Ct./Ste 102W
Roselle, IL 60012

**Gerald D. Rork
Consultant**

AUG 31 1992

Appendix H

LIABILITY LITIGATION
PRODUCT SAFETY
RADIATION LICENSING
RADIATION PROTECTION
TECHNICAL EXPERT

Mr. John Piche
Fyrnctics Inc.
2021 Davis Road
Joliet, IL 60120

31 Aug 1992

Dear Mr. Piche,

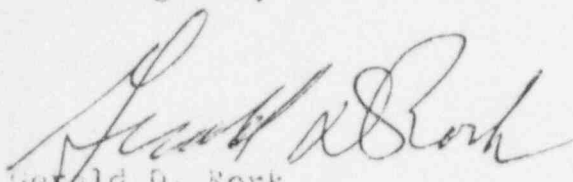
At your request, I have evaluated the design modifications to the existing ionization chamber which you propose to use in future Fyrnctics smoke detectors. This evaluation, of what you have designated the Type 100A ionization chamber, only considered the radiological aspects of the design. The enclosed is a report of my conclusions.

Since this chamber is only a modification of the present design which has been approved for distribution in smoke detectors, a minimum of additional testing was necessary. The test results are enclosed also.

In my professional opinion, the type 100A ionization chamber, when installed in a smoke detector, meets all criteria required for distribution to persons exempt from licensing requirements under the provisions of Part 30 Chapter 10 Code of Federal Regulations.

Please contact me if there are any questions or if additional information is necessary.

Best regards,



Gerald D. Rork
Radiological Consultant