

**CITY OF SACRAMENTO**  
1231 I Street, Sacramento, CA 95814

**Permit No: 9907268**  
**Insp Area: 1**

**Site Address: 1900 14TH ST SAC**  
Parcel No: 009-0084-014

**Sub-Type: COM**  
**Housing (Y/N): N**

CONTRACTOR  
BAKER BURGLAR & FIRE  
11466 GEORGETOWN DR  
RANCHO CORDOVA CA 95670

OWNER  
JIM DEANGELIA  
1900 14TH ST  
SACRAMENTO CA 95822

ARCHITECT

**Nature of Work: MONITOR WATER FLOW SWITCH**

**CONSTRUCTION LENDING AGENCY:** I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C).

Lender's Name \_\_\_\_\_ Lender's Address \_\_\_\_\_

**LICENSED CONTRACTORS DECLARATION:** I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with section 7000) of Division 3 of the Business and Professions Code and my license is in full force and effect.

X License Class C-16 License Number 22222 Date 7-2-99 Contractor Signature Clint Chew

**OWNER-BUILDER DECLARATION:** I hereby affirm under penalty of perjury that I am exempt from the contractors License Law for the following reason (Sec. 7031.5, Business and Professions Code: any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Section 7000) of Division 8 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars (\$500.00);

I, as a owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professional Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his/her own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he/she did not build or improve for the purpose of sale.)

I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractors License Law).

I am exempt under Sec. \_\_\_\_\_ B & PC for this reason: \_\_\_\_\_

Date \_\_\_\_\_ Owner Signature \_\_\_\_\_

**IN ISSUING THIS BUILDING PERMIT,** the applicant represents, and the city relies on the representation of the applicant, that the applicant verified all measurements and locations shown on the application or accompanying drawings and that the improvement to be constructed does not violate any law or private agreement relating to permissible or prohibited locations for such improvements. This building permit does not authorize any illegal location of any improvement or the violation of any private agreement relating to location of improvements.

I certify that I have read this application and state that all information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction and hereby authorize representative(s) of this city to enter upon the abovementioned property for inspection purposes.

X Date 7-2-99 Applicant/Agent Signature Clint Chew

**WORKER'S COMPENSATION DECLARATION:** I hereby affirm under penalty of perjury one of the following declarations:

I have and will maintain a certificate of consent to self-insure for workers' compensation as provided for by Section 3700 of the Labor Code, for the performance of work for which the permit is issued.

I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier \_\_\_\_\_ Policy Number \_\_\_\_\_ Exp Date \_\_\_\_\_

(This section need not be completed if the permit is for \$100 or less) I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California and agree that if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions.

X Date 7-2-99 Applicant Signature Clint Chew

WARNING: FAILURE TO SECURE WORKER'S COMPENSATION COVERAGE IS UNLAWFUL AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS (\$100,000) IN ADDITION TO THE COST OF COMPENSATION. DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST AND ATTORNEY'S FEE.

**THIS PERMIT SHALL EXPIRE BY LIMITATION IF WORK IS NOT COMMENCED WITHIN 180 DAYS.**

**BAKER BURGLAR & FIRE**  
**635-5796**  
**SYSTEMS INC.**

ISSUED

JUL 07 1999

CITY OF SACRAMENTO  
 DEVELOPMENT SERVICES

INSTALLER LIC. WILL BE THAT OF CLINT CHILDS DBA CENTRAL VALLEY ELECTRIC  
 LIC. # 322647 EXP 3-31-99

LOAD CALCULATION CHART

FOR GRADE A LOCAL MERCANTILE INSTALLATIONS:  
 THE MINIMUM REQUIREMENTS TO FORM A LISTED GRADE A LOCAL SYSTEM INCLUDES  
 LOW BATTERY ALARM ANNUNCIATION (UNLESS DIALER IS USED TO TRANSMIT A LOW BATTERY MESSAGE)

CURRENT RATING CHART :

CONTROL (G824)	=	100 MA.
KEYPAD (G-KP)	=	24 MA.
FIRE MODULE (G-FM3)	=	50 MA.
KEYPAD (G-KP ALPHA)	=	40 MA.

WORK SHEET :

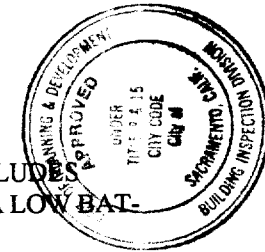
CONTROL (G-824)	100 MA.	X	24	HOURS	=	2.4	AH
KEYPAD (G-KP ALPHA)	40 MA.	X	24	HOURS	=	.58	AH
HORN/STROBE	124 MA.	X	15	MIN.	=	1.86	AH
FM	50 MA.	X	24	HOURS	=	1.2	AH
CONTROL(WHILE RINGINS)	100 MA.	X	15	MIN.	=	.025	AH
SMOKE DETECTOR	.005 MA.	X	24	HOURS	=	.12	AH
STROBE	114 MA.	X	15	MIN.	=	1.71	AH

TOTAL = 7.89 AH

INSTALLATION WILL BE WITH 2 YUASA 12V - 7.0 AH BATTERIES FOR A TOTAL OF 12 VOLT 14 A.H. STAND-BY POWER.

RICH JORDAN  
 B.B.&F.

This set of plans and specifications must be kept on the job at all times and it is unlawful to make any changes or alterations from the same without written permission from the Building Inspection Division.  
 The approval of this plan and specification SHALL NOT be held to permit or approve the violation of any City Ordinance or State Law.



**BAKER BURGLAR & FIRE**  
**635-5796**  
**SYSTEMS INC.**

WIRING SCHEDULE

PULL STATION = 18-2 COND. SOLID

P.I.V. = 18 -2 COND. SOLID ( IF INSTALLED )

O.S.&Y. = 18-4 COND. SOLID ( IF INSTALLED )

CUTT-OFF VALVE = 18-2 COND. SOLID ( IF INSTALLED )

WATER FLOW = 18-2 COND. SOLID

SMOKE DETECTOR = 18-4 COND. SOLID

HORN / STROBE = 18-2 COND. SOLID

CFM LISTINGS ATTACHED

RICH JORDAN

B. B. & F.

## Wire Drop Calculation

Voltage Applied:	12	Volts	
Wire Run Length (one way):	100	Feet	
Wire Run Current:	1.25	Amps	
Wire Size:	18	AWG	
Ambient Temperature:	77	deg. F	
Voltage Drop:	0.161	Volts	
Percent Drop of System Voltage:	1.345	%	
End Of Run Voltage	11.83	Volts	

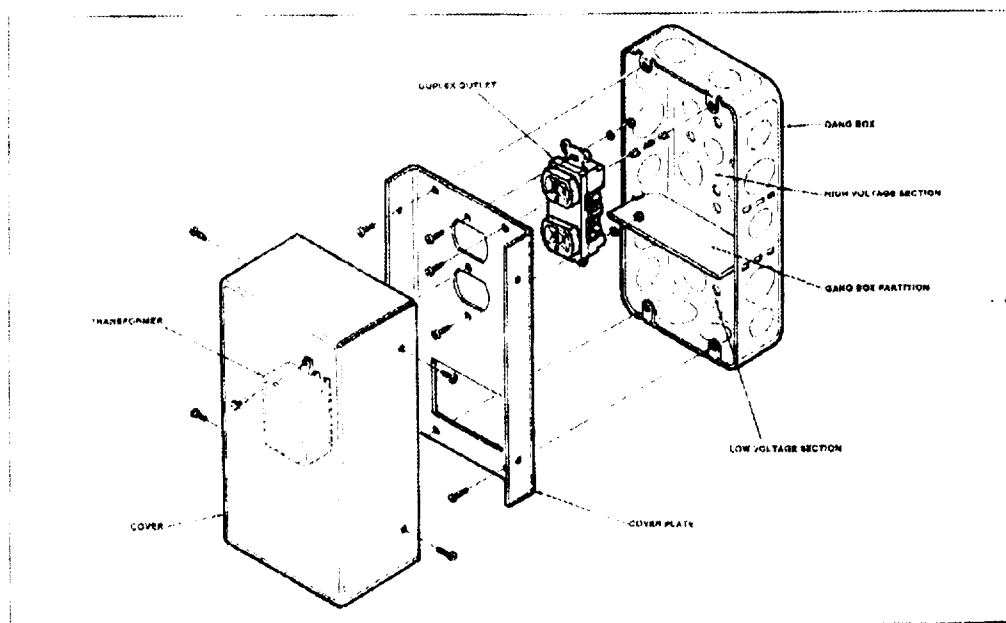
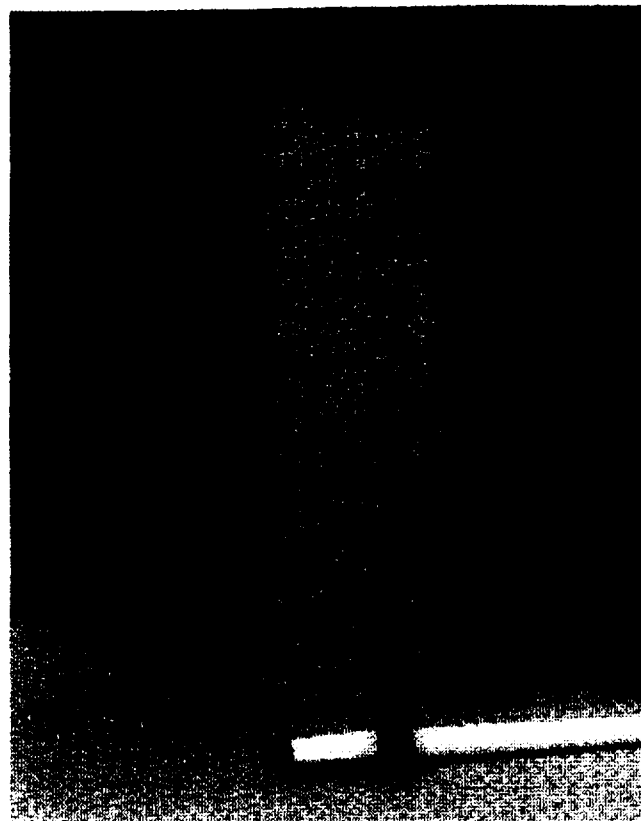
## Omegalarm D8004 Transformer Enclosure Installation Instructions

### Description

The Omegalarm D8004 Transformer Enclosure is used to protect the AC plug-in transformer and to insure it remains securely fixed to the AC wall outlet. The D8004 Transformer Enclosure may be required for certain fire alarm applications. Consult your local authority having jurisdiction for installation requirements.

### Installation Instructions

- 1) Mount gang box to the wall or supporting structure.
- 2) Insert gang box partition into the gang box. The partition divides the gang box into two sections. The large section will contain high voltage wiring, the small section will contain low voltage wiring.
- 3) Punch out a conduit knockout in the high voltage side of the gang box. Bring 110 VAC wiring through knockout hole and into gang box as required by the local authority having jurisdiction.
- 4) Connect isolated 110 VAC wiring to the duplex outlet.
- 5) Mount the duplex outlet to the cover plate using #6 machine screws, nuts and lockwashers provided.
- 6) Mount cover plate to gang box using #10 screws provided with gang box.
- 7) Punch out a conduit knockout in the low voltage side of the gang box. Bring low voltage wiring through the knockout hole and into gang box as required by the local authority having jurisdiction.
- 8) Connect low voltage wiring to transformer.
- 9) Plug transformer into the bottom outlet of the duplex outlet. Secure the transformer to the duplex outlet with screw provided.
- 10) Attach cover to cover plate with four #6 self tapping screws provided.



74-04200-000 12/86



**Radionics**

1800 ABBOTT ST., P.O. BOX 80012, SALINAS, CA 93912-0012  
CUSTOMER SERVICE: (800) 538-5807, IN CA (800) 682-9865



CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION  
OFFICE OF THE STATE FIRE MARSHAL  
FIRE ENGINEERING DIVISION

## LISTING SERVICE

LISTING EXPIRES  
JUNE 30, 1999

**LISTING No:** 7185-1339:109

Page 1 of 1

**CATEGORY:** Control Unit (Non-High Rise)

**LISTEE:** Optex Morse, Inc., 1845 W 205th Street, Torrance, CA 90501  
Contact Person: Paul Van Winkle (310) 533-1500

**DESIGN:** Models GENESYS 824 and \*G-824 ALPHA fire warning systems. Refer to listee's data sheet for additional detailed product description and operational considerations. This listing includes the following components:

G-824/-824 Alpha*	Control Unit
G-KP/-824 Alpha*	Keypad
G-FM/-FM II*	Fire Module
G-EX	Expansion Module

**INSTALLATION:** In accordance with listee's printed installation instructions, applicable codes and ordinances and in a manner acceptable to the authority having jurisdiction.

**MARKING:** Listee's name, model number, electrical rating and UL label.

**APPROVAL:** Listed as fire warning control units for use with separately listed compatible initiating and indicating devices.

This control unit does not generate a temporal pattern signal. If the distinctive three-pulse Temporal Pattern Fire Alarm Evacuation Signal (for total evacuation) in accordance with NFPA 72, 1993 Edition is required, the control unit must be used with appliances that can generate the temporal pattern signal. Refer to manufacturer's Installation Manual for details.

**NOTE:** Burglary and other non-fire functions were not examined. Refer to listee's data sheet for compatible non-fire devices.

\*Rev. 02-10-85

THIS LISTING IS BASED UPON TECHNICAL DATA SUBMITTED BY THE APPLICANT. CSFM FIRE ENGINEERING STAFF HAS REVIEWED THE TEST RESULTS AND/OR OTHER DATA BUT DOES NOT MAKE AN INDEPENDENT VERIFICATION OF ANY CLAIMS. THIS LISTING IS NOT AN ENDORSEMENT OR RECOMMENDATION OF THE ITEM LISTED. THIS LISTING SHOULD NOT BE USED TO VERIFY CORRECT OPERATIONAL REQUIREMENTS OR INSTALLATION CRITERIA. REFER TO LISTEE'S DATA SHEET, INSTALLATION INSTRUCTIONS AND/OR OTHER SUITABLE INFORMATION SOURCES.

**DATE ISSUED: JUNE 8, 1998**  
EFFECTIVE ISSUE DATE TO EXPIRATION DATE

APPROVED BY:



**Fire-Lite Alarms**  
INCORPORATED

F-200

## BG-8 Series Manual Fire Alarm Pull Stations

Catalog Section: Conventional Initiating Devices

February 28, 1996

### GENERAL

The **BG-8** Manual Fire Alarm Pull Station provides a single-action, normally-open contact alarm initiating point for use with UL listed Fire Alarm Control Panels.

### FEATURES

- Complies with Americans with Disabilities Act.
- Sturdy metal construction.
- Simple operation
- Operation does not require replacement of parts.
- Drawing of flames on cover helps communicate purpose of this device to people who do not read English words
- Designed to prevent false alarms when bumped, shaken, or jarred.
- Listed to UL 38

### APPLICATIONS

Designed for indoor use in atmospheres which are not potentially explosive. Use as a means of allowing anyone on the premises to turn in a non-coded alarm quickly, without chance of error. Typical uses include:

1. Schools
2. Hospitals
3. Retail stores.
4. Industrial plants.
5. Warehouses.

Compatible with any appropriate control panel to:

1. Initiate local alarm signals
2. Trip a municipal fire alarm box
3. Start fire pumps.
4. Any other function that can be initiated or controlled by the closing of a switch contact

### OPERATION

The stations feature non-break-glass operation.

They are operated by a pull on the pull cover. This causes a key latch to act against a retaining mechanism until adequate force is applied to open the station. As the station opens, a switch is released to initiate an alarm. The retainer in Model **BG-8** is a permanent, high-tensile, flat spring, which eliminates the need for a glass retainer. When so operated, the cover hangs down (and cannot be reset without use of a reset key) indicating that the station was used to initiate an alarm. **OPERATED STATIONS CAN BE SEEN UP TO 100 FEET AWAY.**

**MEA**  
38-93-E



S711



California  
State Fire  
Marshal

7150-0075:148

**ADA**



**BG-8**  
(Shown full size)

The attractive design of the stations highlights their engineered simplicity and unusual dependability; bumping, shaking, or jarring will not activate the switch or circuit. Instructions for operation of the station are clearly marked on the front of the pull cover.

This document is not intended to be used for installation purposes. We try to keep our product information up-to-date and accurate. We cannot cover all specific applications or anticipate all requirements. All specifications are subject to change without notice. For more information, contact Fire-Lite. Phone: (203) 484-7161 FAX: (203) 484-7118



**Fire-Lite Alarms**  
INCORPORATED

12 Clintonville Road, Northford, Connecticut 06472

**ISO-9001**  
Engineering and Manufacturing  
Quality System Certified to  
International Standard ISO-9001



Made in the U.S.A.



CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION  
OFFICE OF THE STATE FIRE MARSHAL  
FIRE ENGINEERING DIVISION

## LISTING SERVICE

LISTING EXPIRES  
JUNE 30, 1999

LISTING No. 7150-0075:148

Page 1 of 1

CATEGORY: Boxes/Pull Stations

LISTEE: Fire-Lite Alarms, 12 Clintonville Road, Northford, CT 06472-1653  
Contact: Lawrence Flood (203) 484-1200

DESIGN: Models BG-8 and BG-8SP manual pull stations. Refer to listee's data sheet for additional detailed product description and operational considerations.

INSTALLATION: In accordance with listee's printed installation instructions, applicable codes and ordinances and in a manner acceptable to the authority having jurisdiction.

MARKING: Listee's name, product designation, electrical rating and UL label.

APPROVAL: Listed as manual pull stations for use with separately listed electrically and functionally compatible fire alarm control units.

XLF: 7150-0028:003

01-25-93

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DATE ISSUED: **MAY 14, 1998**

APPROVED BY:



# 100 Series™ Low-Profile Direct-Wire Smoke Detector



A Division of Pittway  
3825 Ohio Avenue, St. Charles, IL 60174  
1-800-SENSOR2 (736-7672), Fax 630-377-6495  
<http://www.systemsensor.com>

## Models Available

- 1100D Ionization, 2-Wire**
- 1112/24D Ionization, 4-Wire**
- 2100D Photoelectric, 2-Wire**
- 2100TD Photoelectric with Thermal, 2-Wire**
- 2112/24D Photoelectric, 4-Wire**
- 2112/24TD Photoelectric with Thermal, 4-Wire**

## Features

- Smart-Check™ self-diagnostic maintenance feature to satisfy NFPA 72 sensitivity testing requirement
- Plug-in terminal block with captured SEMS screws decreases wiring and installation time
- Removable insect screen protects sensor from insects and airborne dust
- Built-in test switch
- Visual alarm, power, and maintenance indicator
- Thermal models available
- Ceiling white color
- 12/24 VDC operation
- Same housing design for both ion and photo models
- 3-year warranty

**System Sensor 100 Series** low-profile, direct-wire detectors pack superb performance and reliability into a small package. Their sleek, 1.66" (43 mm) profile is the lowest in the industry, and the advanced circuitry provides superior false alarm immunity, while reducing maintenance. Other key features include: low current draw, stable performance in high air velocities, and built-in tamper-resistant base design.

## Specifications

Operating Voltage:	12 or 24 VDC (nominal)
Relay Contact Rating (4-wire only):	1 Form A, 0.1 A @ 35 VDC
Standby Current:	50 $\mu$ A maximum average
Alarm Current, 2-wire models:	100 mA maximum limited by panel
Alarm Current, 4-wire models:	
12 VDC:	23 mA maximum
24 VDC:	25 mA maximum
Temperature Range:	32° to 120° F (0° to 50° C)
2100TD, 2112/24TD:	32° to 100° F (0° to 39° C)
Dimensions	
Diameter:	5.5 inches (140 mm)
Height:	1.66 inches (43 mm) including adapter bracket
Shipping Weight (approximate):	5.3 oz. (150 grams)

Humidity Range: 10% to 93% RH, noncondensing  
Smoke Detector Spacing:  
On smooth ceilings (as defined in NFPA 72), spacing of 30 feet (900 sq. ft.) may be used as a guideline. Other spacing may be used depending on ceiling height, high air movements, and other conditions or response requirements.



**MEA**  
approved

## General Description

System Sensor 100 Series low profile detectors use state-of-the-art sensing chambers to meet all applicable UL performance criteria. The backs of the smoke detectors are sealed against back pressure, air flow, and dirt. A fine mesh screen also protects the chamber against the entry of insects. These detectors are intended for open area protection and for use with UL-listed control panels.

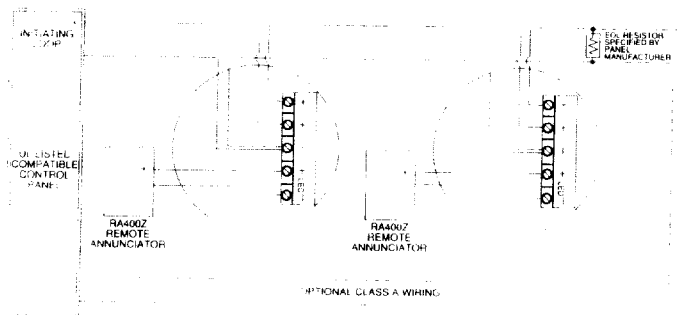
### Ionization

All 100 Series ionization smoke detectors use a single source, dual chamber design for the detection of smoke

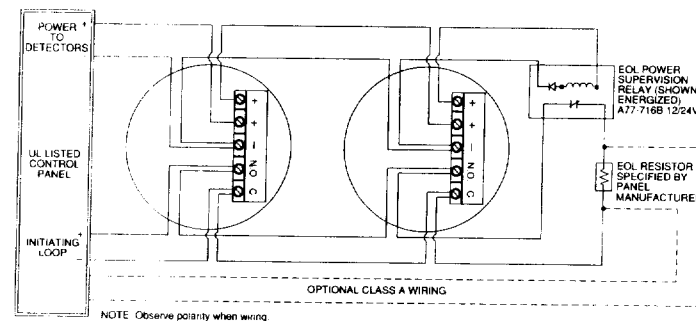
particles. This extremely stable chamber significantly reduces nuisance alarms and provides reliable performance at higher air velocities.

### Photoelectronic/Thermal

The unique design of the optical sensing chamber in 100 Series photoelectronic smoke detectors can sense smoke particles from a wide range of combustion sources. These detectors minimize nuisance alarms by using a custom integrated circuit for signal processing.



Wiring Diagram for 1100D, 2100D, 2100TD



Wiring Diagram for 1112/24D, 2112/24D, 2112/24TD

## Ordering Information

Part No.	Description		
1100D	Ion, 2-wire, 12/24 VDC		
1112/24D	Ion, 4-wire, 12/24 VDC	2112/24TD	Photo with 135°F thermal, 4-wire, 12/24 VDC
2100D	Photo, 2-wire, 12/24 VDC	A77-716B	EOL power supervision relay module, 12/24 VDC smoke detectors
2100TD	Photo with 135°F thermal, 2-wire, 12/24 VDC	MOD400R	Sensitivity test tool for 100, 200, 300, 400, and 500 Series smoke detectors
2112/24D	Photo, 4-wire, 12/24 VDC		

## System Sensor Worldwide Manufacturing & Distribution

**In Canada:**  
Telephone: 905-812-0767  
Fax: 905-812-0771

**In the Far East:**  
Telephone: 852-2191-9003  
Fax: 852-2736 6580

**In Italy:**  
Telephone: 39-40-9490-111  
Fax: 39-40-382137

**In China:**  
Telephone: 852-2191-9003  
Fax: 852-2736-6580

**In India:**  
Telefax: 91-022-8202564

**In the United Kingdom:**  
Telephone: 44-1403-276500  
Fax: 44-1403-276501



CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION  
OFFICE OF THE STATE FIRE MARSHAL  
FIRE ENGINEERING DIVISION

## LISTING SERVICE

LISTING EXPIRES  
JUNE 30, 1999

**LISTING No.** 7272-1209:159

Page 1 of 1

**CATEGORY:** Photoelectric Smoke Detector

**LISTEE:** System Sensor, 3825 Ohio Ave., St. Charles IL 60174  
Contact: Adam Kozlowski (630) 377-6580

**DESIGN:** Model 2100, 2100T, 2112TL\*, 2112/24, 2112/24B, 2112/24D\*, 2112/24T, 2112/24TB, 2112/24TD\*, 2112/24TSR, 2112/24TSRB, 2100D\*, 2100TD\* and 2151 photoelectric smoke detectors. Models 2100, 2100T, 2100D\*, 2100TD\* and 2151 are 2-wire and Models 2112TL\*, 2112/24D\*, 2112/24TD, 2112/24, 2112/24B, 2112/24T, 2112/24TB, 2112/24TSR and 2112/24TSRB are 4-wire. \*Model with suffix -T employs a supplemental thermistor type heat sensor. Refer to listee's data sheet for additional detailed product description and operational considerations.

**RATING:** Electrical: 8.5 to 32 VDC

**INSTALLATION:** In accordance with listee's printed installation instructions and applicable codes and ordinances. Suitable in open areas with air velocities between 0-3000 ft/min.

**MARKING:** Listee's name, model number, electrical rating and UL label.

**APPROVAL:** Listed as photoelectric smoke detectors when used in conjunction with separately listed compatible fire alarm control units and bases. For wall and ceiling mount.

\*Rev. 05-07-98

THIS LISTING IS BASED UPON TECHNICAL DATA SUBMITTED BY THE APPLICANT. CSFM FIRE ENGINEERING STAFF HAS REVIEWED THE TEST RESULTS AND/OR OTHER DATA BUT DOES NOT MAKE AN INDEPENDENT VERIFICATION OF ANY CLAIMS. THIS LISTING IS NOT AN ENDORSEMENT OR RECOMMENDATION OF THE ITEM LISTED. THIS LISTING SHOULD NOT BE USED TO VERIFY CORRECT OPERATIONAL REQUIREMENTS OR INSTALLATION CRITERIA. REFER TO LISTEE'S DATA SHEET, INSTALLATION INSTRUCTIONS AND/OR OTHER AVAILABLE INFORMATION SOURCES.

Date Issued: MAY 15, 1998



CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION  
OFFICE OF THE STATE FIRE MARSHAL  
FIRE ENGINEERING DIVISION

## LISTING SERVICE

LISTING EXPIRES  
JUNE 30, 1999

**LISTING No:** 7770-0328:010

Page 1 of 1

**CATEGORY:** Valves/Switches

**LISTEE:** Potter, 2081 Craig Rd., St. Louis MO 63146  
Contact: Matthew Springli (800) 325-3936

**DESIGN:** Supervisory switches listed below to monitor pressure, OS&Y, gate, globe/gate, PIV, tank temperature or water level valves. Refer to listee's data sheet for detailed product description and operational considerations.

HLS-B	WLS-W	WLS-S	PS-40A
PS-120A	OSYSU-2	OSYS-B	PMS
PTS-B	OSYSU-1	GVS	PCVS-1
PCVS-2	TTS-W	PIVS-B	TTS-S

**INSTALLATION:** In accordance with listee's printed instructions, applicable codes and ordinances and in a manner acceptable to the authority having jurisdiction.

**MARKING:** Listee's name, model designation and FM or UL label.

**APPROVAL:** Listed as sprinkler system supervisory switches.

**NOTE:** Formerly 7738-0328:010

02-05-93

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**DATE ISSUED: MARCH 13, 1998**  
EFFECTIVE ISSUE DATE TO EXPIRATION DATE

APPROVED BY:



CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION  
OFFICE OF THE STATE FIRE MARSHAL  
FIRE ENGINEERING DIVISION

## LISTING SERVICE

LISTING EXPIRES  
JUNE 30, 1999

**LISTING No.** 7135-1209:173

**CATEGORY:** Audible Devices

**LISTEE:** System Sensor, 3825 Ohio Ave, St Charles IL 60174  
Contact: Adam Kozlowski (630) 377-6580

**DESIGN:** Models P1215, P2415, P2475, P24110, P121575 and P241575 horn/strobes with or without suffix -W (white color). Refer to listee's data sheet for additional detailed product description and operational considerations.

**RATING:**

Electrical:	-12:	10.5 - 17 VDC
	-24:	20 - 30 VDC
Candela:	-15:	15cd
	-1575:	15cd, 75cd on axis
	-75:	75cd
	-110:	110cd

**INSTALLATION:** In accordance with listee's printed installation instructions, applicable codes & ordinances and in a manner acceptable to the authority having jurisdiction. These sounder/strobe combination units are not intended for field assembly.

**MARKING:** Listee's name, model number, rating and UL label.

**APPROVAL:** Listed as horn strobes for use with separately listed compatible fire alarm control units. Suitable for the hearing impaired application. For wall mount and indoor use only.

If this appliance is required to produce a distinctive three-pulse Temporal Pattern Fire Alarm Evacuation Signal (for total evacuation) in accordance with NFPA 72, 1993 Edition, the appliance must be used with a fire alarm control unit that can generate the temporal pattern signal. Refer to manufacturer's Installation Manual for details.

**NOTE:** Models P1215 and P121575 are NOT intended for Public Mode Fire Alarm Service when used on 12 V control panel at low volume.

02-03-97

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**Series 204**

Fire Protective

**Power-Limited Fire Protective Parallel Wire**

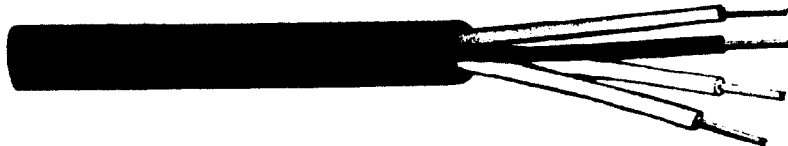
Underwriters  
Laboratories Inc.®  
Listed Type FPL

- 60° C PVC insulation.
- Solid bare copper conductors.
- State of California State Fire Marshal Approval Number 7161-0972-100.
- Manufactured in accordance with UL Subject 1424 and the N.E.C. Article 760 Sections 760-51(f) & 760-53(c).

CATALOG NUMBER	AWG	NOMINAL O.D.	WEIGHT LBS/MFT	STANDARD STOCK COLORS
<b>PARALLEL CONSTRUCTION - RIB &amp; STRIPE FOR POLARITY</b>				
204-18-1-2J	18	.107 x .197	18	W, R, Bk, Br
204-16-1-2J	16	.115 x .230	25	White, Red
204-14-1-2J	14	.131 x .245	36	Red
204-12-1-2J	12	.140 x .276	52	Red

**Series 205**

Fire Protective

**Power-Limited Fire Protective Circuit Signaling Cable**

Underwriters  
Laboratories Inc.®  
Listed Type CMR-FPLR



- Solid bare copper conductors.
- 60° C red PVC jacket.
- 60° C PVC insulation.
- Color Code see Table V.
- State of California State Fire Marshal Approval Number 7161-0972-100.
- Manufactured in accordance with UL Subject 1424 and the N.E.C. Article 760 Sections 760-51(f) & 760-53(c).

CATALOG NUMBER	NUMBER OF COND'S	NOMINAL O.D.	WEIGHT LBS/MFT	STANDARD STOCK COLORS
<b>SOLID WIRE JACKETED</b>				
205-22-1-4J	4	.150	16	Red
205-18-1-2J	2	.151	16	Red
205-18-1-4J	4	.185	30	Red

NOTE: CABLED APPLICATIONS, ORDER 202 SERIES.

**atlas**  
WIRE & CABLE CORP.

SEP 14 '98 07:55 FR  
06/29/98 15:22 662 692 9203

TO 6358502  
ATLAS WIRE & CBL

P.02

001



CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION  
OFFICE OF THE STATE FIRE MARSHAL  
FIRE ENGINEERING DIVISION

## LISTING SERVICE

LISTING EXPIRES  
JUNE 30, 1999

Page 1 of 1

LISTING No: 7161-0972:100

CATEGORY: Cables-Fire Protective Signaling

LISTEE: Atlas Wire & Cable, 133 S. Van Norman Rd., Montebello CA 90640  
Contact: Tony Sanders (213) 723-2401.

DESIGN: Model FPL, FLPR and FPLP power limited fire protective signaling cables.

Conductors: Two or more conductors

INSTALLATION: In accordance with listee's printed installation instructions, applicable codes & ordinances, NEC Article 760, and in a manner acceptable to the authority having jurisdiction.

MARKING: Listee's name, Type "FPL", "FPLR", "FPLP", and UL label.

APPROVAL: Listed as power-limited fire protective signaling cables.

UL FILE # E95962 for all Jacketed Products  
E95962 for all Parallel Products

\*Rev. 04-29-97

THIS LISTING IS BASED UPON TECHNICAL DATA SUBMITTED BY THE APPLICANT. CSFM FIRE ENGINEERING STAFF HAS REVIEWED THE TEST RESULTS AND/OR OTHER DATA BUT DOES NOT MAKE AN INDEPENDENT VERIFICATION OF ANY CLAIMS. THIS LISTING IS NOT AN ENDORSEMENT OR RECOMMENDATION OF THE ITEM LISTED. THIS LISTING SHOULD NOT BE USED TO VERIFY CORRECT OPERATIONAL REQUIREMENTS OR INSTALLATION CRITERIA. REFER TO LISTEE'S DATA SHEET, INSTALLATION INSTRUCTIONS AND/OR OTHER SUITABLE INFORMATION SOURCES.

DATE ISSUED: MARCH 12, 1998  
EFFECTIVE ISSUE DATE TO EXPIRATION DATE

APPROVED BY:

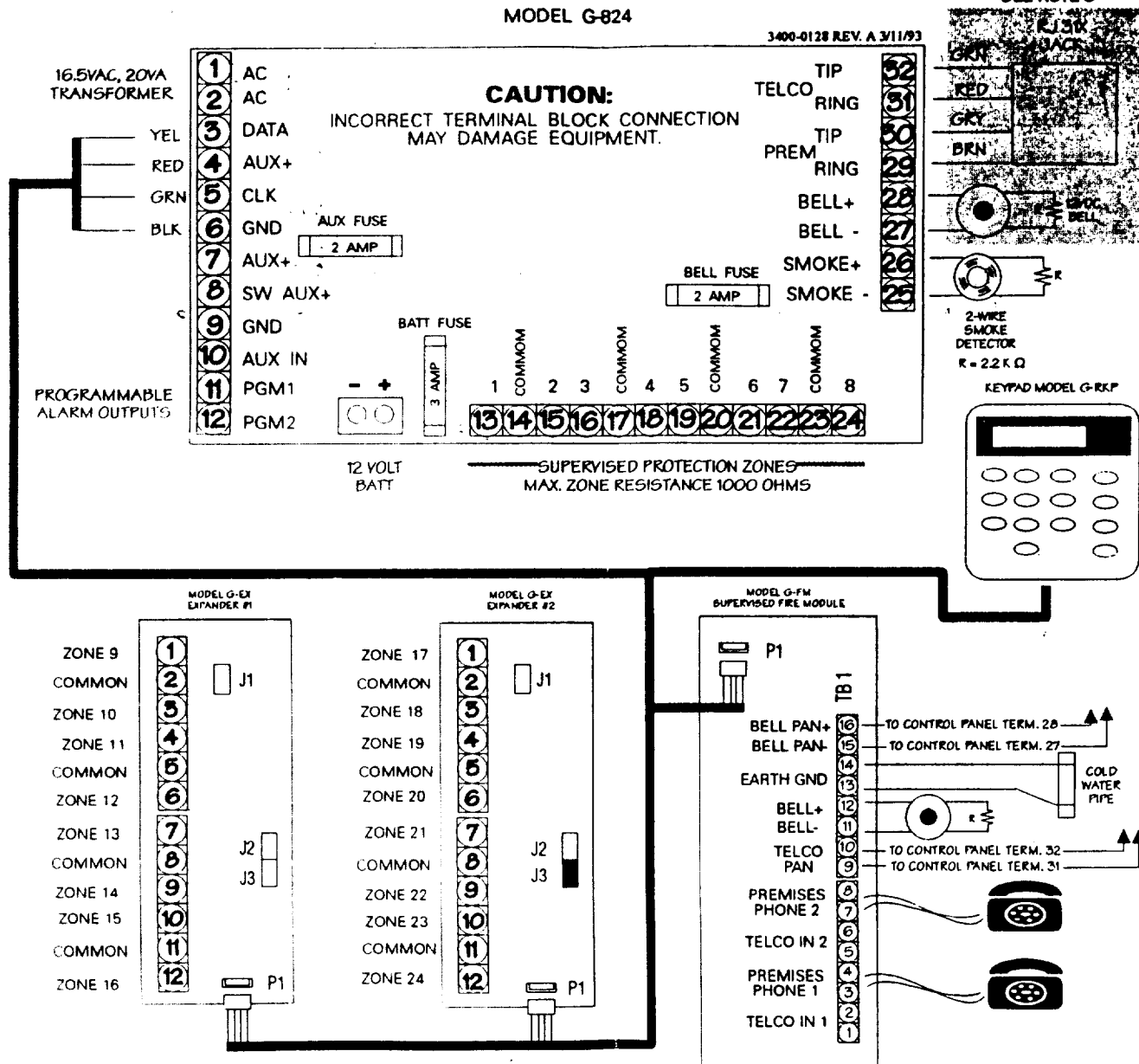
  
DEPUTY BEN HO

# OPTEX MORSE

8 CHANNEL CONTROL COMMUNICATOR  
MODEL G-824

3400-0128 REV. A 3/11/93

SEE NOTE 8



- NOTE:**
1. MAXIMUM COMBINED POWER AVAILABLE ON #24 CONTROL PANEL INCLUDING TERM. 4, 6, 7, 8, 9, 25, 26, 27 & 28 IS 750 mA.
  2. USE 2.2 KOHM 1/2 WATT RESISTORS FOR ZONES THAT REQUIRE EOL (ZONE TYPE 2, 3 & 4).
  3. 2-WIRE SMOKE CONNECTION (TERM. 25 & 26) ALSO REQUIRES 2.2 KOHM EOL RESISTOR.
  4. SAME VALUE EOL RESISTOR IS ALSO REQUIRED FOR 12VDC BELL.
  5. ZONE EXPANDER BOARD IS CONFIGURED AS ZONE 9...16 WHEN J1, J2 & J3 ARE OFF, AND IS CONFIGURED AS ZONE 17...24 WHEN J3 IS ON.
  6. CONNECTIONS FROM CONTROL PANEL TO G-EX AND G-FM ARE MADE WITH CABLE ASSEMBLY PROVIDED.
  7. PGM1, PGM2 ARE OPEN COLLECTOR OUTPUTS THAT GO LOW TO APPROX. 2V WHEN ACTIVATED. MAX CURRENT 100 mA.
  8. SHADED AREA SHOWS PHONE AND BELL CONNECTIONS WHEN G-FM IS NOT USED. DISREGARD IF USING G-FM.



# GENESYS 824 - WIRING INSTRUCTIONS

## TERMINALS

- 1 & 2 16 VAC Class II plug-in transformer (20 va maximum). Use 18 ga twisted or zip pair and keep wire run as short as possible. Test the electrical outlet being used to ensure it is not controlled by a light switch. (24 hour source)
- 3-4-5-6 Data bus inputs - These terminals are used for wiring in keypads (maximum 4) and expansion modules (maximum 2). The keypads and expansion modules can be wired in either a daisy chain or homerun configuration. Each keypad must be addressed by setting the two dip switches located on the back of each keypad. Maximum cable length 1,000 feet.

KEYPAD	SWITCH	
	1	2
1	on	on
2	on	off
3	off	on
4	off	off

- 7 - 11 - 12 PGM-1 and PGM-2 outputs are open collector outputs - Terminal 7 is the positive voltage output and Terminal 11 is the negative output of PGM-1. Terminal 7 is the positive voltage output and Terminal 12 is the negative output of PGM-2. The maximum current available for these two outputs is 200 ma each. When PGM-1 and or PGM-2 are triggered, these outputs go low.
- 7 - 9 Auxiliary power outputs - Terminal 7 is positive voltage output and Terminal 9 is negative voltage output. These terminals provide a continuous 12 volt output. These terminals should be used for any device that doesn't require an interruption of power to reset an activation.
- 8 - 9 Terminals 8 is a positive, switched power output. Terminal 9 is negative.  
  
If any zones are configured as fire zones, the power is derived from these terminals. If a fire zone is activated, the user enters his PIN and terminal 8 will go low for ten seconds.
- 10 - 9 Tamper N.C. or Keyswitch inputs - This input is a programmable option. See installation and programming manual - memory location 76A. When programmed as a tamper switch input the input will always be silent. When programmed as a keyswitch input, a momentary close is required. The panel will always arm in an away mode, when a keyswitch is used.
- 13 thru 24 Protection loops - Zones 1 thru 8 are connected to these terminals as indicated in Fig. 1.  
  
All loops are two wire and may be wired as the following "Loop Types":  
  
O NORMALLY OPEN: This loop requires the use of detection devices or switches that close (short) on alarm.  
  
1 NORMALLY CLOSED: This loop requires the use of detection devices or switches that open on alarm.  
  
2 NORMALLY OPEN and NORMALLY CLOSED: This loop requires an end-of-line resistor (2.2 K ohms) and will accept both types of switch operation (open or closed).

3 NORMALLY OPEN with TROUBLE REPORT ON BREAK: This loop requires an end-of-line resistor (2.2 K ohms) and detection devices or switches that "close" (short) on alarm. An open condition (loss of 2.2 K ohms resistor) will produce:

- a) If programmed as a 24 Hour zone and for trouble report - the audible in the keypad will sound and the communicator will transmit the trouble code to the central station.
- b) If programmed as a controlled zone (Day/Night) and for Trouble report - the audible in the keypad will sound if the system is disarmed.

If the system is armed the audible in the keypad will sound and the communicator will transmit the trouble code to the central station.

4 NORMALLY CLOSED with TROUBLE REPORT on SHORT: This loop requires an end-of-line resistor (2.2 K ohms) and detection devices or switches that "open" on alarm. A short will produce:

- a) If programmed as a 24 Hour zone and for trouble report - the audible in the keypad will sound and the communicator will transmit the trouble code to the central station.
- b) If programmed as a controlled zone (Day/Night) and for Trouble report - the audible in the keypad will sound if the system is disarmed.

If the system is armed the audible in the keypad will sound and the communicator will transmit the trouble code to the central station.

25(-) 26(+) Two wire smoke detector loop. These 2 terminals are used in conjunction with ESL Model 420 series. If there is an activation on this loop entering a valid PIN will reset this loop maximum number of ESL model 420 series smoke detectors that can be used on this loop is twenty (20).

The keypad will display [FIRE] when this input trips.

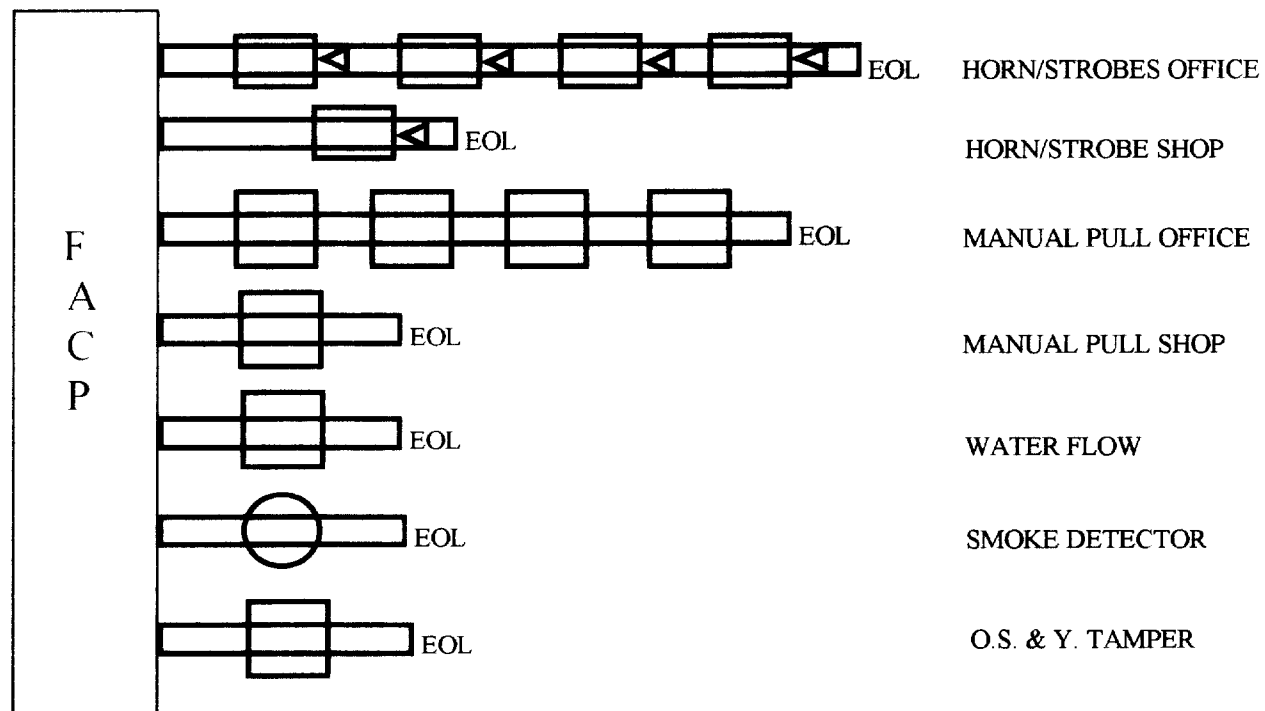
27(-) 28(+) Bell voltage output - 12 VDC is provided on these terminals. The maximum amount of current available is 2 amps. For supervision of the bell circuit, a Fire Module (G-FM) must be used.

29 thru 32 Telephone line connection - The Genesys 824 provides for single phone line hookup with full line seizure. To expand to two line use the Fire Module (G-FM) must be used.

		<u>RJ JACK</u>	<u>PIN</u>
TERM 29	PREMISE RING	GRAY	1
TERM 30	PREMISE TIP	BROWN	8
TERM 31	TELCO RING	RED	4
TERM 32	TELCO TIP	GREEN	5

**BAKER BURGLAR & FIRE**  
**635-5796**  
**SYSTEMS INC.**

TYPICAL FIRE ALARM WIRING



NOTE :

THIS LINE DIAGRAM IS ONLY A TYPICAL FIRE SYSTEM, SOME EQUIPMENT  
MAY OR MAY NOT BE USED AS PER THE JOB IN QUESTION.

# MEMORANDUM

SACRAMENTO FIRE DEPARTMENT

TO: BUILDING DEPARTMENT

DATE: 11-4-99

FROM: Troy Malaspino  
Fire Marshal

SUBJECT: FIRE SYSTEM INSPECTION

A final inspection of the newly installed fire system at:

1900 14<sup>th</sup> St.

has been conducted by Inspector PACK

on 11-4-99

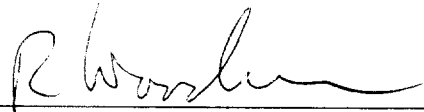
99-07268

Permit Number

—  
Square Footage

MONITORING  
Type of Inspection

The system is acceptable by this department.



By: Ross L. Woodman,  
Fire Prevention Officer II

99-261

F. D. Reference Number