

11-0062

NEW JERSEY
UNIFORM CONSTRUCTION CODE

CONSTRUCTION PERMIT APPLICATION

C-10-004525

1. Proposed Work Site at: 1617 Route 88 WES

2. Name of Owner in Fee: Laneshon Medical Center Tel. ()

Address 1617 Route 88 WES street municipality zip code

3. Ownership in Fee: Public Private

4. Principal Contractor: SM Security Tel. 732 929-2636

Address 591 Fischer BLVD T.R. NJ 08753

License No. OR, if new home. Builder Reg. No. Exp. Date

Federal Employee No. 22 326 2411 FAX: (732) 270 1277

5. Architect or Engineer Tel. () CO

Address

6. Responsible Person in Charge of Work

Tel. () FAX ()

alarms

1. Building	\$	20	✓
2. Electrical			
3. Plumbing		15	✓
4. Fire Protection			
5. Elevator Devices			
6. Subtotal	\$		
7. Less 20% for State Plan Review			
8. Subtotal	\$		
9. DCA Training Fee		8	
10. Subtotal			
11. Cert. of Occupancy			
12. Other			
13. TOTAL	\$	133	

1. Number of Stories _____
2. Height of Structure _____ ft.
3. Area of Largest Floor _____ sq. ft.
4. New Building Area _____ sq. ft.
5. Volume of New Structure _____ cu. ft.
6. Construction Classification _____
7. Total Land Area Disturbed _____ sq. ft.
8. Flood Hazard Zone _____
9. Base Flood Elevation _____ ft.
10. Wetlands yes _____
 no _____
11. Max. Live Load _____
12. Max. Occupancy Load _____

muu

1. ☐ Minor Work
2. ☐ New Building
3. ☐ Addition
4. ☐ Alteration
5. ☐ Fire Protection
6. ☐ Plumbing
7. ☐ Electrical
8. ☐ Elevator Devices
9. ☐ Asbestos Abat. Subch. 8
10. ☐ Lead Hazard Abatement
11. ☐ Demolition

Est. Cost

[illegible]

- ☐ Partial Releases
- ☐ Prototype Processing

1. ☐ Elevators/Escalators/Lifts/ Dumbwaiters/Moving Walks	5. ☐ Cross-Connections/Backflow Preventers
2. ☐ High Pressure Boilers	6. ☐ Hazardous Uses/Places of Assembly
3. ☐ Pressure Vessels	7. ☐ Sprinklers
4. ☐ Refrigeration Systems	8. ☐ Smoke Control Systems in Open Wells
	9. ☐ Underground Storage Tanks

A. RESIDENTIAL

1. ☐ Hotels (R-1)
2. ☐ Multi-Family (R-2)
3. ☐ Two-Family (R-3) BOCA
4. ☐ Two-Family (R-4) CABO
5. ☐ One-Family (R-3) BOCA
6. ☐ One-Family (R-4) CABO

No. of dwelling units:

Before Construction _____
After Construction _____
Net Gain or Loss _____

B. NON-RESIDENTIAL

1. State Specific Use:
2. Use Group:
3. Change in Use Group. Indicate Former:

CERTIFICATION IN LIEU OF OATH

I. OWNER SECTION (to be completed if the applicant is the owner in fee)

I hereby certify that I am the owner in fee of the property listed on Page 1.

Mark the following applicable boxes:

- A. ☐ I further certify that a new home (private residence) will be constructed on this property for my own use and occupancy. This dwelling is to be occupied by myself and is not to be used for any purpose other than single family residential use. I attest that all construction, plumbing, or electrical work will be done, in whole or in part, by me or by subcontractors under my supervision, in accordance with all applicable laws; and, I further acknowledge that said new home is not covered under the New Home Warranty and Builders Registration Act (N.J.S.A. 46:3B-1 et seq.) and that such fact shall be disclosed to any person purchasing this property within ten years of the date of issuance of a certificate of occupancy.

I UNDERSTAND THAT IN MARKING BOX A, I ACKNOWLEDGE THAT I AM ASSUMING RESPONSIBILITY FOR THE WORK DONE ON SAID PROPERTY, THE CONDITION OF THE PROPERTY PRIOR TO, DURING, AND AFTER ANY WORK PERFORMED, AND FOR THE PERFORMANCE OF THE SUBCONTRACTORS I HIRE, EMPLOY, OR OTHERWISE CONTRACT OR WITH WHOM I MAKE AGREEMENTS TO PERFORM WORK. I AM VOLUNTARILY AND KNOWINGLY ASSUMING THIS RESPONSIBILITY.

- B. ☐ I further certify the following as required by the New Jersey Uniform Construction Code, N.J.A.C. 5:23-2.15(e)1.vii:

I personally prepared the plans submitted for: 1) the new home referred to in A.; or 2) an addition, alteration, renovation, or repair to an existing single family residence owned and occupied by myself and located on the property listed on Page 1; or, 3) a new structure that will be physically separate from, but that will be deemed part of, an existing single family residence that is owned and occupied by myself and located on the property listed on Page 1.

- C. ☐ I further certify that I will perform or supervise the following work:

C.1. ☐ Building C.2. ☐ Fire Protection

I further certify that I will perform the following work:

C.3. ☐ Electrical C.4. ☐ Plumbing

- D. ☐ I agree to advise all contractors on this project that they are required to be registered with the New Jersey Division of Taxation and to comply with all New Jersey tax laws.

I further certify the following as required by the Uniform Construction Code, N.J.A.C. 5:23-2.15(a)5: All required State, county, and local prior approvals have been given, including such certification as the construction official may require.

I understand that if any of the above statements are willfully false, I am subject to punishment.

Signature _____ Date _____

II. AGENT SECTION (to be completed if the applicant is not the owner in fee)

I hereby certify the following as required by the Uniform Construction Code, N.J.A.C. 5:32-2.15(d): the proposed work is authorized by the owner in fee; and I have been authorized by the owner in fee to make this application as his agent.

I further certify the following as required by the Uniform Construction Code, N.J.A.C. 5:23-2.15(a)5: All required State, county, and local prior approvals have been given, including such certification as the construction official may require.

I agree to advise all contractors on this project that they are required to be registered with the New Jersey Division of Taxation and to comply with all New Jersey tax laws.

I understand that if any of the above statements are willfully false, I am subject to punishment.

(☒) Check if contractor.

Agent Name Gerardo Melon S.M. Security
Address 591 Fischer Blvd
Toms River, NJ 08753
Telephone (732) 429-26
Signature [Signature]

- III. ☐ LEAD/HAZARD ABATEMENT: Include Homeowner or Building Owner Affidavit as per N.J.A.C. 5:17.

12.15.10 called CONTRA-Ready for p14- oop
~~left~~ left message on machine



Brick Township
401 Chambersbridge Rd
Brick, NJ 08723

Date Issued 10/31/2011
Control Number C-10-004525
Permit Number 11-0013
Permit Issue Date 01/04/2011
Certificate Number 11-0013

Certificate
Construction Code Division
(Certificate of Approval)

Identification

Work Site Location: 1617 ROUTE 88 Laureilton Medical Center Block: 827 Lot: 19 Qual: _____
Brick Township, NJ
Owner in Fee: 1617 ROUTE 88 WEST ASSOCIATES
Owner Address: 1617 ROUTE 88 WEST BRICK NJ 08724
Telephone: _____
Contractor JM SECURITY COMMUNICATIONS
Address 591 FISCHER BLVD TOMS RIVER NJ 08753
Telephone: (732) 929-2636 Fax: (732) 270-1277
License Number or Builders Registration Number: 153693 13VH02037500 Federal Emp. Number: 22-3262411

Home Warranty Number: _____

Type of Warranty Plan: ☐ State ☐ Private

Use Group: I-2 Construction Classification: _____

Maximum Live Load: 0 Maximum Occupancy Load: 0

Description of Work/Use: ALARM SYSTEM (BURGLAR OR FIRE), SMOKES

Certificate Comments:

☐ **Certificate of Occupancy**

This serves notice that said building or structure has been constructed in accordance with the New Jersey Uniform Construction Code and is approved for occupancy.

☒ **Certificate of Approval**

This serves notice that the work completed has been constructed or installed in accordance with the New Jersey Uniform Construction Code and is approved. If the permit was issued for minor work, this certificate was based upon what was visible at the time of inspection.

☐ **Certificate of Continued Occupancy**

This serves notice that based on a general inspection of the visible parts of the building there are no imminent hazards and the building is approved for continued occupancy.

☐ **Temporary Certificate of Compliance**

The following conditions must be met no later than or the owner will be subject to fine or order to vacate:

This certificate has an expiration date of:

Conditions to be met:

☐ **Certificate of Clearance - Lead Abatement 5:17**

This serves notice that based on written certification, lead abatement was performed as per NJAC5:17 to the following extent.

- ☐ Total removal of lead-based paint hazards in scope of work
☐ Partial or limited time period (years); see file

☐ **Certificate of Clearance - Asbestos Abatement**

This serves notice that based on written certification, asbestos abatement was performed to the following extent.

- ☐ Total removal of asbestos hazards in scope of work
☐ Partial or limited time period (years); see file

☐ **Certificate of Compliance**

This serves notice that said potentially hazardous equipment has been installed and/or maintained in accordance with the New Jersey Uniform Construction Code and is approved for use until

☐ **Temporary Certificate of Occupancy**

The following conditions must be met no later than: or the owner will be subject to fine or order to vacate:

This certificate has an expiration date of:

Conditions to be met:

Construction Official

Fee: \$0.00
Check Number: _____
Collected By: _____



CONSTRUCTION PERMIT

Date Issued
Control #
Permit #

01-04-11
C-10-004525
11-0013

IDENTIFICATION Block: 827 Lot: 19 Qualifier
Work Site Location: 1617 ROUTE 88 Laurelton Medical Center Brick Contractor JM SECURITY COMMUNICATIONS
Township, NJ Address 591 FISCHER BLVD TOMS RIVER NJ 08753
Owner in Fee 1617 ROUTE 88 WEST ASSOCIATES Telephone: (732) 929-2636
1617 ROUTE 88 WEST BRICK NJ 08724 Lic. No. or Bldrs. Reg. No. 153693
Telephone: Federal Employee No. 22-3262411

Is hereby granted permission to perform the following work:

- ☐ BUILDING ☐ PLUMBING ☐ LEAD HAZARD ABATEMENT
☒ ELECTRICAL ☒ FIRE PROTECTION ☐ DEMOLITION
☐ ELEVATOR DEVICES ☐ ASBESTOS ABATEMENT (Subchapter 8 only) ☐ OTHER

DESCRIPTION OF WORK:

ALARM SYSTEM (BURGLAR OR FIRE) SMOKE

Note: If construction does not commence within one (1) year of date of issuance, or if construction ceases for a period of six (6) months, this permit is void.

Estimated Cost of Work \$4,650

Construction Official

Date

12-14-10

U.C.C. F170
equiv (rev 8/03)

1 WHITE - INSPECTOR

2 CANARY - OFFICE

3 PINK - TAX ASSESSOR

4 GOLD - APPLICANT

PAYMENTS (Office Use Only)

Building	\$0
Electrical	\$50
Plumbing	\$0
Fire Protection	\$75
Elevator Devices	\$0
Other	\$0.00
DCA Training Fee	\$8
CO Fee	
Other	\$0
Total	\$133
Check No.	
Cash	\$0
Credit	\$0
Collected By	

REQUIRED INSPECTIONS

Construction work must be inspected in accordance with the State Uniform Construction Code Regulations N.J.A.C. 5:23-2.18. This agency will carry out such periodic inspections during the progress of work as are necessary to insure that the work installed conforms with the requirements of the Uniform Construction Code.

The owner or other responsible person in charge of work must notify this agency when work is ready for any required inspections specified below. Requests for inspections must be made at least 24 hours prior to the time the inspection is desired. Inspections will be performed within three business days of the time for which they are requested. The work must not proceed in a manner which will preclude the inspection until it has been made and approval granted.

- ☐ Required inspections for all subcodes for one- and two-family dwellings are as follows:

1. The bottom of footing trenches before placement of footings, except that in cases of pile foundations, inspections shall be made in accordance with the requirements of the building subcode.
2. Foundations and all walls up to grade level prior to back filling.
3. All structural framing, connections, wall and roof sheathing and insulation; electrical rough wiring, panel and service installation; rough plumbing. The framing inspection shall take place after the rough electrical and plumbing inspections and after the installation of the heating, ventilation and/or air conditioning duct system. The insulation inspection shall be performed after all other subcode rough inspections and prior to the installation of any interior finish material.
4. Installation of all finished materials, sealings of exterior joints, plumbing piping, trim and fixtures; electrical wiring, devices and fixtures; mechanical systems equipment.

Additional required inspections for all subcodes of construction, for other than one- and two-family dwellings, are fire suppression systems, heat producing devices and Barrier Free subcode accessibility, if applicable.

- ☐ Required special inspections. The applicant by accepting the permit will be deemed to have consented to these requirements:

ELECTRIC
FIRE
DCA
CHECK

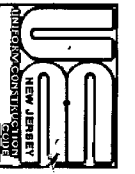
12992
X06 SERV.DD6

130.00
075.00
18.00
0133.00

- ☒ A final inspection is required for each applicable subcode area before a final Certificate of Occupancy or Approval may be issued. The final inspections include the installation of all interior and exterior finish materials, sealing of exterior joints, mechanical system and other required equipment; electrical wiring, devices and fixtures; plumbing pipes, trim and fixtures; tests required by any provision of the adopted subcodes, Barrier Free accessibility, if applicable; and verification of compliance with NJAC 5:23-3.5, "Posting structures".

- ☐ A complete copy of released plans must be kept on the job site.

If you do not understand any of this information, please ask.



FIRE PROTECTION SUBCODE TECHNICAL SECTION



A. IDENTIFICATION—APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000.

Block 201 Qualification Code 19

Work Site Location 1617 Route 88 West

Owner in Fee: Laurelton Medical Center

Tel () 732 929-2436 e-mail Beck, NJ 08729

Address 591 Hseler Blvd T.E.N.J Municipality Beck, NJ 08729

Contractor: Jim Security Tel 732 929-2436

Address 591 Hseler Blvd T.E.N.J e-mail

Fire Protection Equipment, NJ Div of Fire Safety Permit No. _____

Fire Alarm Contractor No. _____ Exp. Date _____

Home Improvement Contractor Registration No. or Exemption Reason (if applicable): _____

Federal Emp. ID No. 223362411 FAX: () _____

B. FIRE PROTECTION CHARACTERISTICS

Use Group: Present _____ Proposed _____ Fire Alarm System: ☒ New or ☐ Existing

Constr. Class: Present _____ Proposed _____ Location of Panel: _____

Heating System: ☐ New or ☐ Existing ☐ HVAC Fire Suppression/Standpipe System:

Type: ☐ Gas ☐ Oil ☐ Electric ☐ Solar ☐ New or ☐ Existing

Location: ☐ Other _____ Location of Main Control Valve: _____

Fuel Storage Tank:

Fuel Type: ☐ Flammable or ☒ Combustible Capacity _____

Total Cost of Fire Protection Work \$ 2325.00

JOB SUMMARY (Office Use Only)

PLAN REVIEW

☒ No Plans Required

☐ Joint Plan Review Required

☐ Building ☐ Plumbing

☐ Electric ☐ Elevator

☒ Fire Plans Approved

Date: 10/28/11

Approved by: [Signature]

SUBCODE APPROVAL

☐ CO ☐ ECO ☒ CA

Date: 10/28/11

Approved by: [Signature]

INSPECTIONS

Type: _____

Alarm System _____

Suppression Sys. _____

Standpipe _____

Fire Pump _____

Pre-Eng. System _____

Mechanical _____

Smoke Control _____

TCO _____

Flam/Combust. Tanks _____

Fireplace/Venting _____

Final _____

Other _____

Dates (Month/Day)

Failure _____

Failure _____

Approval _____

Initial _____

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the Agent, owner, insured and am authorized to make this application.

☐ Certified Contractor

Applicant's Signature/Contractor's Signature

☐ Exempt Applicant

D. TECHNICAL SITE DATA

DESCRIPTION OF WORK:

4 Smoke 1 Heat Detector 1 Free Panel

1 Key Pad

Water Supply Source _____

Method of Alarm/Suppression System Supervision _____

Flammable/Combustible Tanks

Alarm Systems

☒ System

☐ Interconnected

CO Detectors/110V

Alarm Devices (i.e., smoke, heat, pulls,

water/floor)

Supervisory Devices (i.e., tamper, low/high air)

Signaling Devices (i.e., horn/strobes, bells)

Other Devices _____

TOTAL _____

Suppression Systems

Fire Pump _____ GPM Type _____

Dry Pipe/Alarm Valves

Pre-action Valves

Sprinkler Heads (Dry and Wet)

Standpipes

Pre-engineered Systems

Wet Chemical

Dry Chemical

CO₂ Suppression

Foam Suppression

FM200 Suppression

Other _____

Other Systems

Kitchen Hood Exhaust System

Smoke Control System

Fired Appliances ☐ Gas or ☐ Oil

Fireplace/Venting/Metal Chimney

Other _____

Date Received
Control # 06 Yrd-1-0013

Date Issued
Permit # 01-04-11

Administrative Surcharge \$
Minimum Fee \$
State Permit Surcharge Fee \$
TOTAL FEE \$

ELEVATOR INSPECTION



Name Laurelton Medical Ctr
 Address 1617 Rt 88
Brick NJ

Date 8-3-11

TYPE OF INSPECTION/TEST

1 = FA 4 = 3 Yr
 2 = 6 Mo 5 = 5 Yr
 3 = 1 Yr 6 = Reinspection

7 = Alteration
 P = Passenger
 F = Freight

BUILDING REGISTRATION NO 1526-00146-001

If FA, Permit No. _____

COPY

DEVICE TYPE
 DEVICE NUMBER
 TYPE OF INSPECTION/TEST

S = SATISFACTORY U = UNSATISFACTORY (Use NA When Not Applicable)

		S	U	S	U	S	U	S	U	S	U	S	U
A. MACHINE ROOM & MACHINE ROOM EQUIPMENT													
1. Enclosure/Lighting/Vents	X												
2. Machine/Brake/Gears/Motor	X ~ A												
3. Hydro Power Motor Unit	X ~ A												
4. Motor Generator Set/SCR Drive	X ~ A												
5. Controller/Selector	X ~ A												
6. Governor(s)	X ~ A												
7. Relief & Check Valves	X												
8. Required Disconnects	X												
9. Oil/Hydro Fluid, Leaks, Level	X												
10. Hydro Fluid Hoses or Pipe	X												
11. Seals, Plates, Labels, Unit ID, Tags, Signs	X												
12. Routine Maintenance	X												
13.													
B. ELEVATOR CAR AND COUNTERWEIGHT													
1. Car Enclosure/Platform/Sling/Flooring	X												
2. Guide Shoes/Rollers	X												
3. Car Gate/Door/Accessories/Car Door Reopening Device(s)	X												
4. Car Gate or Door Operator	X												
5. Car Lighting/Standard & Emergency	X												
6. Rope Hitches/Platen Hitch	X												
7. Top-of-Car Operating Station/Stop Switch	X												
8. Car Operating Station/Stop Switch/Indicators	X												
9. Emergency Signals & Communication	X												
10. Emergency Exits/Top/Side	X												
11. Safeties & Accessories	X ~ A												
12. Seals, Plates, Labels, Unit ID, Tags, Signs	X ~ A												
13. Firefighter Service PHI & II	X												
14. Counterweight/Car & Counterweight Sheaves	X ~ A												
15. Routine Maintenance	X												
16.													
C. HOISTWAY, HOISTWAY ENTRANCES AND PIT													
1. Enclosure	X												
2. Door, Closers & Accessories	X												
3. Door Interlocks/Emergency Key/Access Keys	X												
4. Guide Rails: Main & Counterweight	X												
5. Switches and Cams	X												
6. Pit/Stop Switch/Light/Ladder	X												
7. Counterweight Guard	X ~ A												
8. Buffers: Spring or Oil	X ~ A												
9. Ropes: Hoist, Governor, Counterweight, Compensating, Tail	X ~ A												
10. Traveling Cable and Wiring	X												
11. Plunger, Cylinder and Gland	X												
12. Governor Rope Tension Sheave & Assembly	X ~ A												
13. Compensating Sheave or Chain	X ~ A												
14. Clearances and Runby	X												
15. Seals, Plates, Labels, Tags	X												
16. Hall Station/Hall Position Indicator (if required), Hall Lantern	X												
17. Routine Maintenance	X												
18.													

**DEVICE TYPE
DEVICE NUMBER
TYPE OF INSPECTION/TEST**

S = SATISFACTORY U = UNSATISFACTORY (Use NA When Not Applicable)

	S	U	S	U	S	U	S	U	S	U	S	U
D. ESCALATOR/MOVING WALKS (Device Type)												
1. Stair Treads/Comb Plates												
2. Balustrade/Handrails												
3. Shear Points Protection												
4. Emergency Stop Switches												
5. Steps, Rollers & Tracks												
6. Chains & Sprockets												
7. Safety Devices												
8. Kiosk/Wellway/Safety Zone												
9. Clearances												
10. Protection of Trusses & Machinery Space (Fire)												
11. Skirt & Steps Clearance												
12. Machinery Access Space & Lighting												
13. Escalator Brakes												
14. Machine/Brakes/Gears/Motor												
15. Starting & Switches												
16. Speed Governor												
17. Roller Shutter Device												
18. Signs, Seals, Planks, Labels, Unit ID, Tags												
19. Step Lighting												
20. Required Disconnect												
21. Routine Maintenance												
22. Tests												
23.												

E. TESTS: TRACTION ELEVATOR DEVICES (Pass or Fail)							
1. Device Number							
2. Car Rated Speed							
3. Overspeed Switch							
4. Tripping Speed							
5. Capacity							
HYDRO ELEVATOR DEVICES (Pass or Fail)	PASS						
1. Car Registration Number	1						
2. Working Pressure	410						
3. Relief Pressure	460						
4. Capacity	2500						
5. Tags							

F. APPLICABLE CODES							
	A171	1993					

ACTION TAKEN							
1. Device Number	1						
2. Recommended Type of Certificate (Cyclical Inspections Only)	CC						
3. Removed from Operation							

Note: When unsatisfactory conditions are noted, see "Notice" attached.

cc To 1-30-12

No violations

Passal smoke det FA

Boymard in El #3997
Inspector's Name (print) and Lic. No.

R. Amey
Inspector's Signature

Cover 36 Foot



ELECTRICAL SUBCODE TECHNICAL SECTION



A. IDENTIFICATION—APPLICANT: COMPLETE ALL APPLICABLE INFORMATION, WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000.

Block 821 1617 Post 88003 Qualification Code 1

Work Site Location Back, NY 08723

Owner in Fee Hyattsville Medical Center

Address 6617 Route 88 West

Tel (732) 933 8036 FAX (732) 876 8211

Contractor License No. 223362411

Federal Emp. No. 223362411

B. ELECTRICAL CHARACTERISTICS

Use Group Present 1 Proposed 1

☐ Pole/Pad # 1 ☐ Temporary ☐ Other 1

Building Occupied as 1 Utility Co. 1

Est. Cost of Elec. Work \$ 82335.00

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the (agent of) owner of record and am authorized to make this application and perform the work listed on this application.

Applicant's Signature/Contractor's Seal and Signature [Signature]

☐ Licensed Elec. Contractor ☐ Certifd Landscape Irrigation Contr ☐ Exempt Applicant

D. TECHNICAL SITE DATA

QTY. SIZE ITEMS

Lighting Fixtures

Receptacles

Switches

Detectors

Light Poles

Motors—Fract. HP

Emergency & Exit Lights

Communications Points

Alarm Devices/F.A.C. Panel

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

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FEE (Office Use Only)

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JOB SUMMARY (Office Use Only)

PLAN/REVIEW

☒ No Plans Required 1/14/05 Date/Initial

Joint Plan Review Required:

☐ Building ☐ Plumbing

☐ Fire ☐ Elevator

☐ Elec. Plans Approved

Date: 10-28-04

Approved by: [Signature] (act)

SUBCODE APPROVAL

☐ CO ☐ CCO ☐ CA

Date: 10-28-04

Approved by: [Signature] (act)

INSPECTIONS

Type:	Failure	Failure	Approval	Initial
Rough				
Barrier-Free				
Trench				
Temp. Serv.				
Const. Serv.				
TCO				
Other				
Service				
Final				
Barrier-Free				
Temp. Cut-In-Card Date Issued				
Final Cut-In-Card Date Issued				
Annual Pool Inspection				
Date of Grounding and Bonding Certification				



ELECTRICAL SUBCODE TECHNICAL SECTION



A. IDENTIFICATION—APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000.

Block 8119 Lot 11 Qualification Code 1111

Owner in Fee 1111 Address 1111

Contractor 1111 Address 1111

Tel 1111 Fax 1111

Contractor License No. 1111 Federal Emp. No. 1111

B. ELECTRICAL CHARACTERISTICS
Use Group 1111 Present 1111 Proposed 1111
☐ Pole/Pad # 1111 ☐ Temporary ☐ Other 1111
Building Occupied as 1111 Utility Co. 1111
Est. Cost of Elec. Work \$ 1111

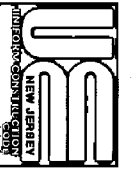
JOB SUMMARY (Office Use Only)	
PLAN/REVIEW	INSPECTIONS
Date Initial	Dates (Month/Day)
☒ No Plans Required <u>1111</u>	Type: <u>1111</u> Failure <u>1111</u> Failure <u>1111</u> Approval <u>1111</u> Initial <u>1111</u>
Joint Plan Review Required:	
☐ Building ☐ Plumbing	Rough <u>1111</u>
☐ Fire ☐ Elevator	Barrier-Free <u>1111</u>
☐ Elec. Plans Approved	Trench <u>1111</u>
Date: <u>1111</u>	Temp. Serv. <u>1111</u>
Approved by: <u>1111</u>	Constr. Serv. <u>1111</u>
	TCO <u>1111</u>
	Other <u>1111</u>
	Service <u>1111</u>
	Final <u>1111</u>
	Barrier-Free <u>1111</u>
SUBCODE APPROVAL	Temp. Cut-In-Card Date Issued <u>1111</u>
☐ CO ☐ CCO ☐ CA	Final Cut-In-Card Date Issued <u>1111</u>
Date: <u>1111</u>	Annual Pool Inspection <u>1111</u>
Approved by: <u>1111</u>	Date of Grounding and Bonding Certification <u>1111</u>

C. CERTIFICATION IN LIEU OF OATH
I hereby certify that I am the (agent of) owner of record and am authorized to make this application and perform the work listed on this application.

Applicant's Signature/Contractor's Seal and Signature
☐ Licensed Elec. Contractor ☐ Certif'd Landscape Irrigation Contr ☐ Exempt Applicant

D. TECHNICAL SITE DATA		
QTY.	SIZE	ITEMS
		Lighting Fixtures
		Receptacles
		Switches
		Detectors
		Light Poles
		Motors—Fract. HP
		Emergency & Exit Lights
		Communications Points
		Alarm Devices/F.A.C. Panel
		1111
TOTAL NUMBERS		
		Pool Permit/with UV Lights
		Storable Pool/Spa/Hot Tub
		KW Elec. Range/Receptacle
		KW Oven/Surface Unit
		KW Elec. Water Heater
		KW Elec. Dryer/Receptacle
		KW Dishwasher
		HP Garbage Disposal
		KW Central A/C Unit
		HP/KW Space Heater/Air Handler
		KW Baseboard Heat
		HP Motors 1/+ HP
		KW Transformer/Generator
		AMP Service
		AMP Subpanels
		AMP Motor Control Center
		KW Elec. Sign/Outline Light

Administrative Surcharge \$	
Minimum Fee \$	
State Permit Surcharge Fee \$	
TOTAL FEE \$	



FIRE PROTECTION SUBCODE TECHNICAL SECTION



A. IDENTIFICATION—APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000.

Block 1617 Lot 19 Qualification Code 19

Work Site Location 12118 Route 65 Loc. 4

Owner in Fee: Kawatchko Properties

Tel. () 732 741 1417 e-mail info@kawatchko.com

Address 5911 Hudson Blvd T.R.N.J. Municipality Jersey City Tel. 732 929 2136

Contractor: 5911 Hudson Blvd T.R.N.J. e-mail info@kawatchko.com

Address 5911 Hudson Blvd T.R.N.J. e-mail info@kawatchko.com

Fire Protection Equipment, NJ Div of Fire Safety Permit No.

Fire Alarm Contractor No. Exp. Date

Home Improvement Contractor Registration No. or Exemption Reason (if applicable):

Federal Emp. ID No. 323362411 FAX: ()

B. FIRE PROTECTION CHARACTERISTICS

Use Group: Present Proposed Fire Alarm System: New or Existing

Constr. Class: Present Proposed Location of Panel:

Heating System: New or Existing HVAC Fire Suppression/Standpipe System:

Type: Gas Oil Electric Solar Location of Main Control Valve:

Location:

Fuel Storage Tank:

Fuel Type: Flammable or Combustible Capacity

Total Cost of Fire Protection Work \$ 23,330.00

JOB SUMMARY (Office Use Only)

PLAN REVIEW	INSPECTIONS	Dates (Month/Day)
☐ No Plans Required	Alarm System	Failure Approval Initial
☐ Joint Plan Review Required	Suppression Sys.	Failure Approval Initial
☐ Building ☐ Plumbing	Standpipe	Failure Approval Initial
☐ Electric ☐ Elevator	Fire Pump	Failure Approval Initial
☐ Fire Plans Approved	Pre-Eng. System	Failure Approval Initial
Date: <u>10/15/13</u>	Mechanical	Failure Approval Initial
Approved by: <u>[Signature]</u>	Smoke Control	Failure Approval Initial
SUBCODE APPROVAL	TCO	Failure Approval Initial
☐ CO ☐ CCO ☐ CA	Flam/Combust Tanks	Failure Approval Initial
Date: <u> </u>	Fireplace Venting	Failure Approval Initial
Approved by: <u> </u>	Other	Failure Approval Initial

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the (agent) owner of record and am authorized to make this application.

☐ Certified Contractor ☐ Exempt Applicant

Applicant's Signature/Contractor's Signature

D. TECHNICAL SITE DATA

DESCRIPTION OF WORK:

Water Supply Source

Method of Alarm/Suppression System Supervision

Flammable/Combustible Tanks

Alarm Systems

☐ System

☐ 110v Interconnected

☐ CO Detectors/110v

Alarm Devices (i.e., smoke, heat, pulls, water/flow)

Supervisory Devices (i.e., tamper, low/high air)

Signaling Devices (i.e., horn/strobes, bells)

Other Devices

Suppression Systems

Fire Pump GPM Type

Dry Pipe/Alarm Valves

Pre-action Valves

Sprinkler Heads (Dry and Wet)

Standpipes

Pre-engineered Systems

Wet Chemical

Dry Chemical

CO₂ Suppression

Foam Suppression

FM200 Suppression

Other

Other Systems

Kitchen Hood Exhaust System

Smoke Control System

Fired Appliances Gas or Oil

Fireplace Venting/Metal Chimney

Other

Date Received 01-04-11

Control # 01-04-11

Date Issued 01-04-11

Permit #

Applicant's Signature/Contractor's Signature

☐ Certified Contractor ☐ Exempt Applicant

Method of Alarm/Suppression System Supervision

Water Supply Source

DESCRIPTION OF WORK:

Flammable/Combustible Tanks

Alarm Systems

☐ System

☐ 110v Interconnected

☐ CO Detectors/110v

Alarm Devices (i.e., smoke, heat, pulls, water/flow)

Supervisory Devices (i.e., tamper, low/high air)

Signaling Devices (i.e., horn/strobes, bells)

Other Devices

Suppression Systems

Fire Pump GPM Type

Dry Pipe/Alarm Valves

Pre-action Valves

Sprinkler Heads (Dry and Wet)

Standpipes

Pre-engineered Systems

Wet Chemical

Dry Chemical

CO₂ Suppression

Foam Suppression

FM200 Suppression

Other

Other Systems

Kitchen Hood Exhaust System

Smoke Control System

Fired Appliances Gas or Oil

Fireplace Venting/Metal Chimney

Other

Administrative Surcharge \$
Minimum Fee \$
State Permit Surcharge Fee \$
TOTAL FEE \$

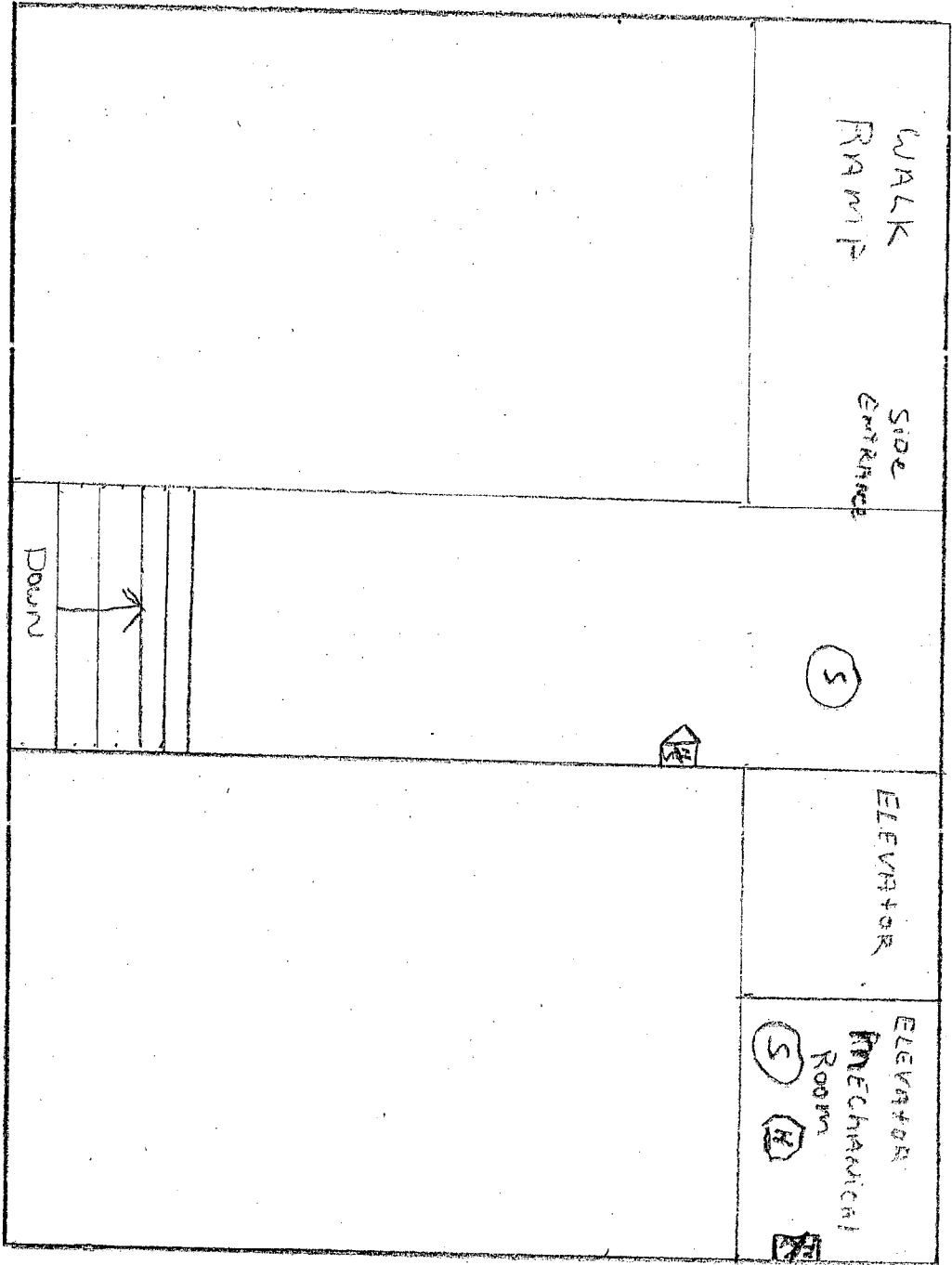
1ST FLOOR PLAN

(S) = Smoke Detector

(H) = Heat Detector

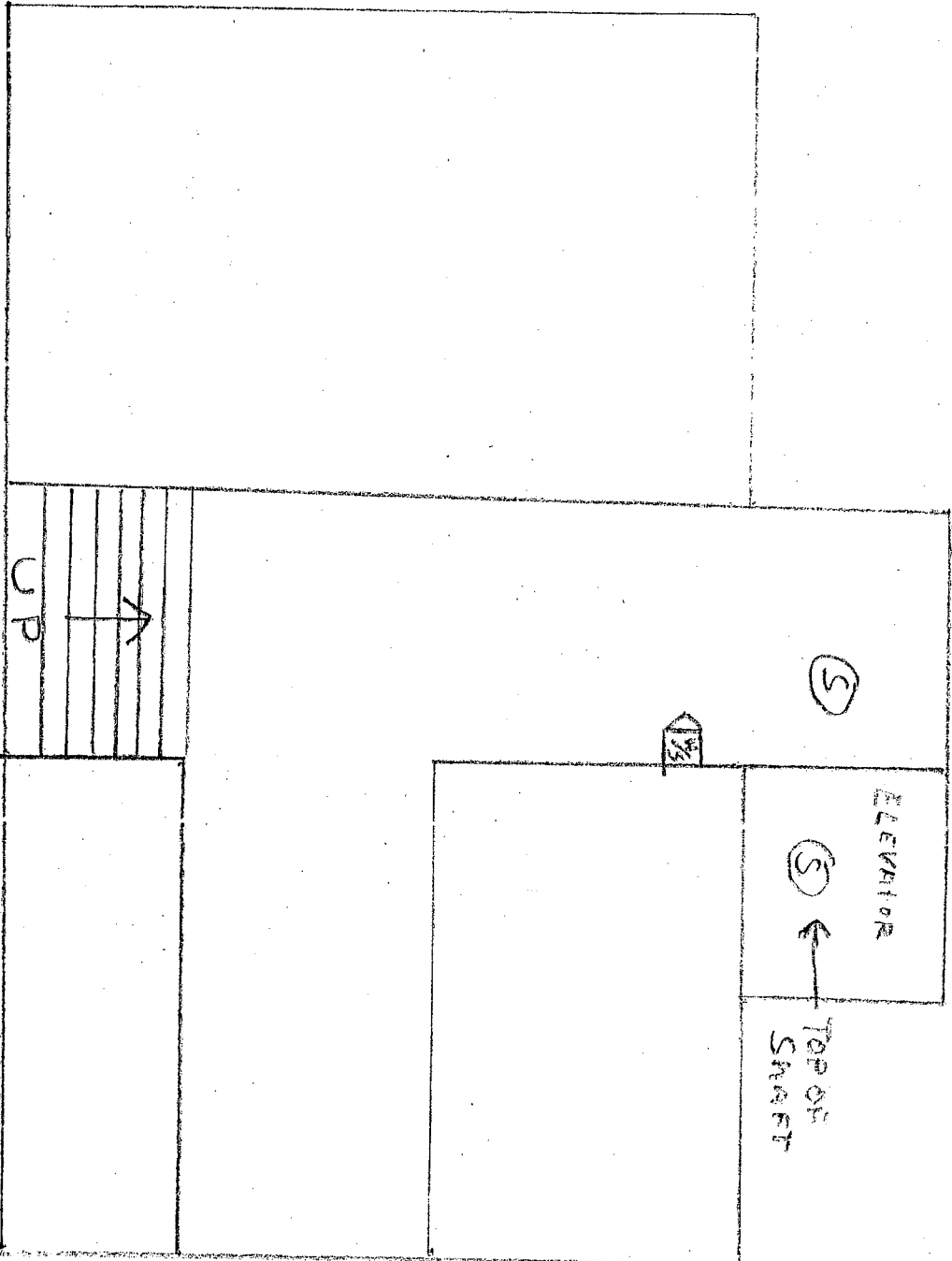
(H/S) = Horn Strobe

[] = FIRE ALARM Control Panel



FRONT ENTRANCE

2nd Floor Plans



FRONT ENTRANCE



State of New Jersey
Department of Community Affairs
Division of Fire Safety



Hereby Issues To

GERARD R MELIA JR

The Following Certification As

FIRE ALARM SYSTEM

09/28/2009 to 10/31/2012

Issue Date

Lapse Date

153693

ID Number

Charles A. T. [Signature]
Acting Commissioner



State of New Jersey
Department of Community Affairs
Division of Fire Safety



Hereby Issues To

GERARD R MELIA

The Following Certification As

FIRE ALARM SYSTEM

09/28/2009 to 10/31/2012

Issue Date Lapse Date

153691

ID Number



New Jersey Office of the Attorney General
Division of Consumer Affairs
Board of Examiners of Electrical Contractors

TELECOMMUNICATIONS

Limited Wiring Exemption*

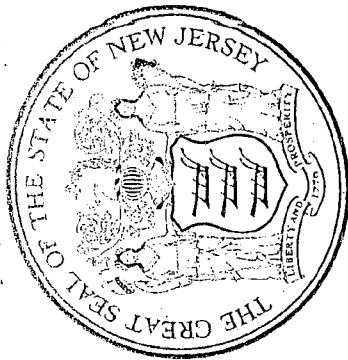
Issued to: JM Security Communications
591 Fischer Blvd.
Toms River, NJ 08753

Gerard R. Smith

Signature of holder

1457

Exemption No.



Business License

Fire Alarm, Burglar Alarm and Locksmith Advisory Committee

Issued to:

JM Security Communications

591 Fischer Boulevard
Toms River NJ 08753

34BF00031800

BA and FA Business

Issue Date: 10/02/2009

Expiration Date: 01/31/2011



BACKGROUND AND MULTIPLE SECURITY FEATURES. PLEASE VERIFY AUTHENTICITY.

State of New Jersey
Department of Community Affairs
Division of Fire Safety



Hereby Issues To

JM SECURITY COMMUNICATIONS INC
Fire Protection Equipment Contractor Business Permit
In The Following Fire Protection Areas:

Fire Alarm System

P00439 10/31/2009 to 10/31/2012

Permit ID	Date Issued	Lapse Date
P00439	10/31/2009	10/31/2012

Charles A. P...
Acting Commissioner

NO
ELI
OR
LIC

NOT AN
ELECTRICIAN'S
OR PLUMBER'S
LICENSE

**State Of New Jersey
New Jersey Office of the Attorney General
Division of Consumer Affairs**

THIS IS TO CERTIFY THAT THE
Division of Consumer Affairs

HAS REGISTERED

JM Security Communications
Gerald Melia
591 Fischer Boulevard
Toms River NJ 08753

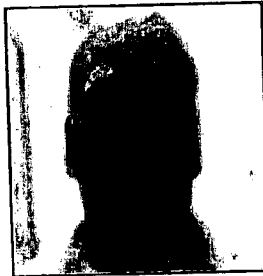
FOR PRACTICE IN NEW JERSEY AS A(N): Home Improvement Contractor

10/29/2010 TO 12/31/2011

VALID

13VH02037500

LICENSE REGISTRATION CERTIFICATION A



State of New Jersey

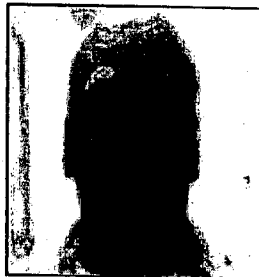
**BURGLAR ALARM
LICENSE**

34BA00098600

EXPIRES: 8/31/2013

DOB: 3/23/1950

GERARD R. MELIA SR



State of New Jersey

**FIRE ALARM
LICENSE**

34FA00081800

EXPIRES: 8/31/2013

DOB: 3/23/1950

GERARD R. MELIA SR



GERARD R. MELIA JR



State of New Jersey

**BURGLAR ALARM
LICENSE**

34BA00142200

EXPIRES: 8/31/2013

DOB: 9/13/1974



GERARD R. MELIA JR



State of New Jersey

**FIRE ALARM
LICENSE**

34FA00113100

EXPIRES: 8/31/2013

DOB: 9/13/1974



CONSTRUCTION PERMIT

Date Issued
Permit #

IDENTIFICATION Block 1617 Route 88 West Lot 101 Qualification Code 591
 Work Site Location Black N.J. 08723 Contractor 101
 Owner in Fee Raymond J. Mervick Center Address 101
 Address 1617 Route 88 West Tel. (732) 424-2636
Black N.J. 08723 Lic. No. or Bldrs. Reg. No.
 Tel. ()

Is hereby granted permission to perform the following work:

- ☐ BUILDING ☐ PLUMBING ☐ LEAD HAZARD ABATEMENT
☐ ELECTRICAL ☐ FIRE PROTECTION ☐ DEMOLITION
☐ ELEVATOR DEVICES ☐ ASBESTOS ABATEMENT ☐ OTHER
 (Subchapter 8 only)

DESCRIPTION OF WORK:

NOTE: If construction does not commence within one (1) year of date of issuance, or if construction ceases for a period of six (6) months, this permit is void.

Estimated Cost of Work \$ 2335.00

Construction Official _____ Date _____

U.C.C. F70 (rev. 01/04)

1 WHITE-INSPECTOR

2 CANARY-OFFICE

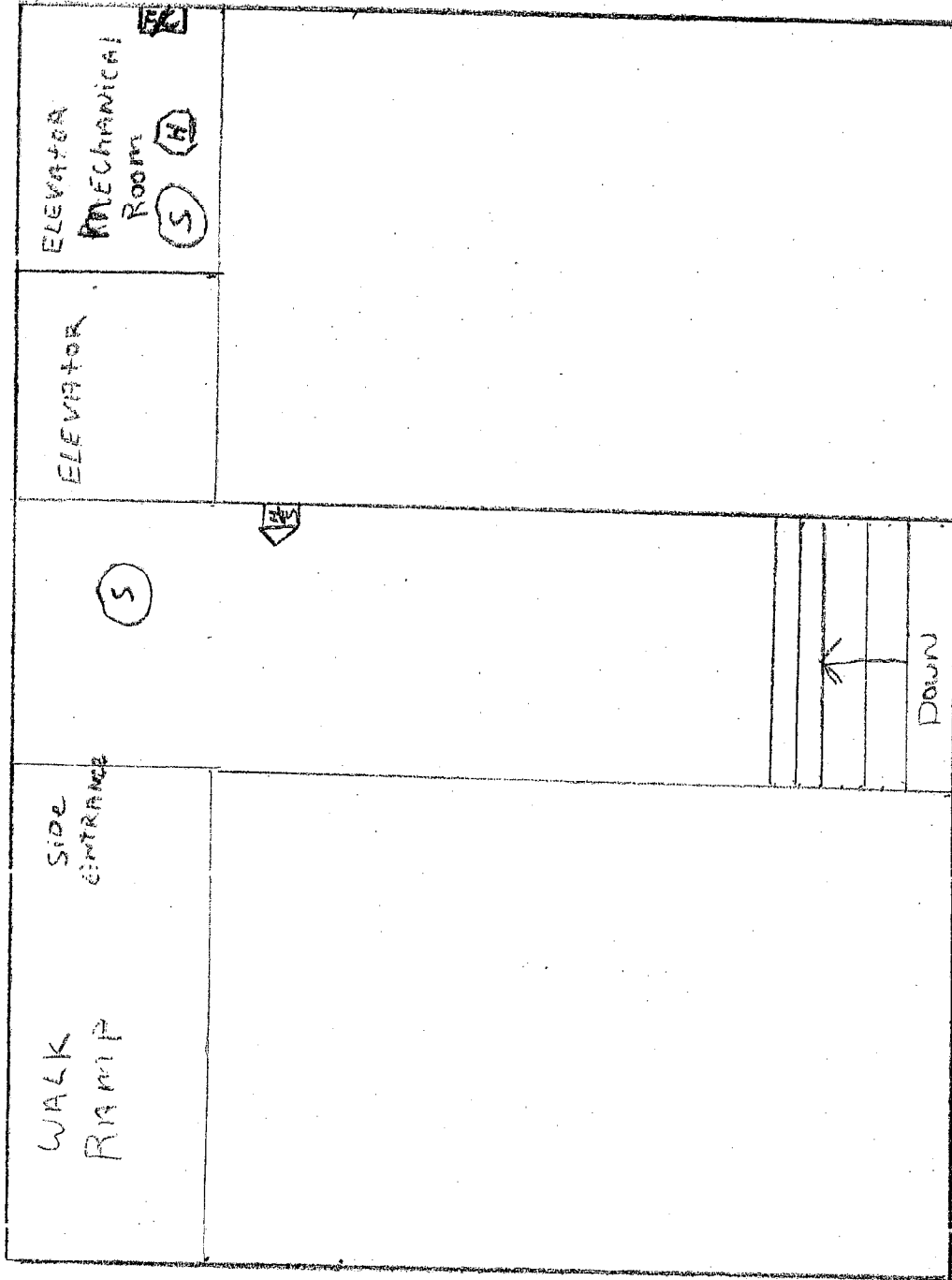
3 PINK-TAX ASSESSOR

4 GOLD-APPLICANT

(see reverse side)

PAYMENTS (Office Use Only)	
Building	
Electrical	
Plumbing	
Fire Protection	
Elevator Devices	
Other	
DCA State Permit Fee	
Cert. of Occupancy	
Other	
Total	
Check No.	
Cash	
Collected by	

1ST FLOOR PLAN



⊙ = Smoke Detector

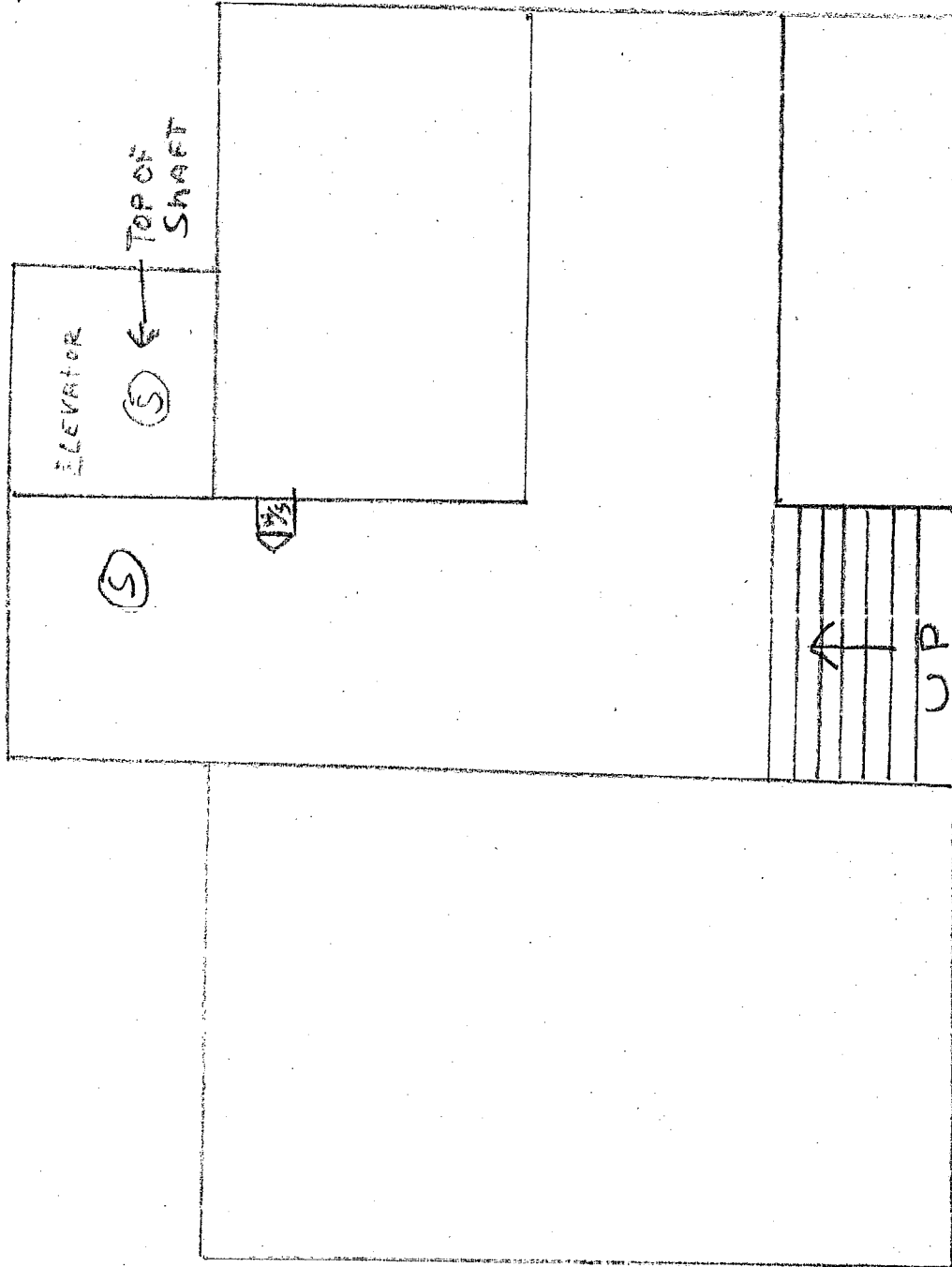
⊙ = Heat Detector

⊠ = Horn Strobe

□ = Fire Alarm Control Panel

FRONT ENTRANCE

2ND FLOOR PLAN



FRONT ENTRANCE

Specifications

18"H X 14-1/2"W X 4.3"D

Physical:

Primary Power: From ADEMCO No. 1451 Transformer with enclosure, rated 18VAC, 72VA.
Backup Battery: 12VDC, 12AH min to 34.4AH max lead acid battery (gel type).
Alarm Power: 12VDC, 1.7A max. for each Notification Appliance Circuit.
Aux. Standby Pwr 12VDC, 1A max.
Total Power: Combined auxiliary standby and alarm currents must not exceed 2.3A.
Standby Time: 24 hours with 1A aux standby load using 34.4AH battery.
Fusing: Battery input, auxiliary and Notification Appliance Circuits are protected using PTC circuit protectors. All outputs are power limited.

Main Dialer

Line Seize: Double Pole
Ringer Equivalence: 0.7B
FCC Registration No.: AC3-USA-68192-AL-E
TLM Threshold

Formats:

Good line when tip-to-ring voltage greater than approximately 25V (13 when blue jumper cut) or when handset current greater than approximately 10mA. Bad line when both voltage and current below these levels.
ADEMCO High Speed, ADEMCO 4 + 2 Express, ADEMCO Low Speed, ADEMCO Contact ID, Sessco and Radionics Low Speed

5140DLM BACKUP DIALER MODULE

Physical: 2.75"H X 4"W X 1"D
FCC Registration: AC3-USA-62626-MO-N

18"H X 14-1/2"W X 4.3"D

Physical:

Primary Power: From ADEMCO No. 1451 Transformer with enclosure, rated 18VAC, 72VA.
Backup Battery: 12VDC, 12AH min to 34.4AH max lead acid battery (gel type).
Alarm Power: 12VDC, 1.7A max. for each Notification Appliance Circuit.
Aux. Standby Pwr 12VDC, 1A max.
Total Power: Combined auxiliary standby and alarm currents must not exceed 2.3A.
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Main Dialer

Line Seize: Double Pole
Ringer Equivalence: 0.7B
FCC Registration No.: AC3-USA-68192-AL-E
TLM Threshold

Formats:

Good line when tip-to-ring voltage greater than approximately 25V (13 when blue jumper cut) or when handset current greater than approximately 10mA. Bad line when both voltage and current below these levels.
ADEMCO High Speed, ADEMCO 4 + 2 Express, ADEMCO Low Speed, ADEMCO Contact ID, Sessco and Radionics Low Speed

5140DLM BACKUP DIALER MODULE

Physical: 2.75"H X 4"W X 1"D
FCC Registration: AC3-USA-62626-MO-N

Specifications

INSTALLER'S INSTRUCTION NOTICE NOT TO BE REMOVED INSTRUCTIONS K3521 FOR ADDITIONAL INFORMATION

TEST BURGLARY SYSTEM WEEKLY

UNIT
STALLED
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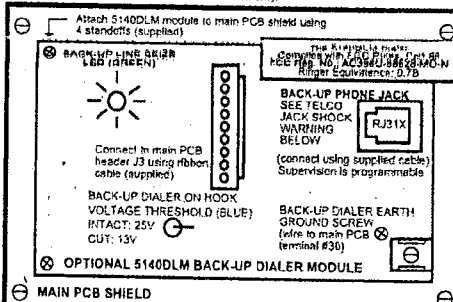
WARNING:
THIS UNIT MAY BE PROGRAMMED TO INCLUDE AN ALARM VERIFICATION FEATURE THAT WILL RESULT IN A DELAY OF THE SYSTEM ALARM SIGNAL FROM THE INDICATED FIRE CIRCUITS. THE TOTAL DELAY (CONTROL UNIT PLUS SMOKE DETECTOR(S)) SHALL NOT EXCEED 60 SECONDS. NO OTHER INITIATING DEVICES SHALL BE CONNECTED TO THESE CIRCUITS UNLESS APPROVED BY THE LOCAL AUTHORITY HAVING JURISDICTION.

CIRCUIT (ZONE)	CONTROL UNIT DELAY-SEC	SMOKE DETECTOR MODEL	DELAY-SEC

THE DELAY TIME MARKED ON THE INSTALLED DETECTOR(S) IS TO BE USED

TYPES OF FIRE SIGNALLING SERVICE:

Manual fire alarm, automatic fire alarm, sprinkler supervisory and waterflow alarm. UL Listed local control (non-cc) UL Listed central station and remote station protected premises unit when used with S140DLM back-up dialer module installation limits under jurisdiction of local authority.



J2 VOLTAGE TRIGGER
See instructions for wiring

1. OUT 1 (THROUBLE)
2. OUT 2 (FIRE)
3. OUT 3 (BURGLARY)
4. OUT 4 (SUPERVISC)
5. OUT 5 (REMOTE KI)
6. OUT 6 (OPEN/CLOS)
7. OUT 7 (H.O. LOCK)
8. GROUND
9. IN 1 (H.O. LOCK)

RATINGS: OUT 1, 4, 7
LOW: HIGH
OTHER OUTS: LOW: HIGH

VOLTAGE TRIGGERS
(not supervised)
4-1427H



BELL CIRCUIT SUPERVISION JUMPER
INACT: Supervised using 2k EOLR
CUT: Not supervised (no EOLR used)

BELL 1 BELL 2
W1 (WHITE) W2 (WHITE)

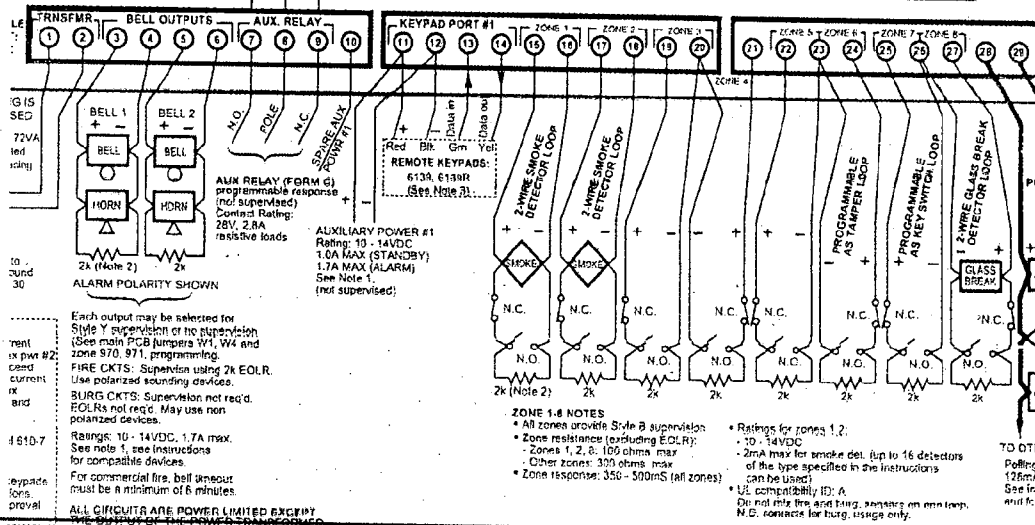
KEYPAD PORT #2
Make connections using 41427R cable (supplied) (not supervised)

J4 KEYPAD PORT #2
See instructions regarding port #2 use

1. GROUND (to keypad black wire)
2. DATA IN 2 (to keypad green wire)
3. AUX PWR #2 (to keypad red wire)
4. Rating: 10 - 14 VDC, 400mA max. See note 1
5. DATA OUT 2 (to keypad yellow wire)
6. PINS 2, 3, 6, 8 & 9 NOT USED

CONNECTION OF THE FIRE ALARM SIGNAL TO A FIRE ALARM HEAD-QUARTERS OR A CENTRAL STATION SHALL BE PERMITTED ONLY WITH THE APPROVAL OF THE LOCAL AUTHORITY HAVING JURISDICTION. THE BURGLARY ALARM SIGNAL SHALL NOT BE CONNECTED TO A POLICE EMERGENCY NUMBER.

INTERFACE
0000



VISTA-32FB SUMMARY OF CONNECTIONS

The VISTA-32FB
Complies with FCC
FCC Reg. No. AC
Ringer Equiv.

INSTALLATION AND MAINTENANCE INSTRUCTIONS



3825 Ohio Avenue, St. Charles, Illinois 60174
1-800-SENSOR2, FAX: 630-377-6495
www.systemsensor.com

5600 Series

Mechanical Heat Detector

Single Circuit: 5601P, 5602, 5603, 5604

Dual Circuit: 5621, 5622, 5623, 5624

Before Installing

This detector must be installed in compliance with the control panel installation manual and meet the requirements of NFPA 72, and/or the local authority having jurisdiction.

Read this manual carefully before using the detector. This manual should be left with the owner/user of this equipment.

General Description

The 5600 series mechanical heat detector is intended for use in property protection applications, or for non-life-safety installations where smoke detection is not practical or appropriate.

WARNING

For life-safety installations, smoke detectors must be used, in lieu of, or in addition to mechanical heat detectors.

The 5600 series consists of both single- and dual-circuit heat detectors featuring fixed temperature thermal sensors or combination fixed temperature/rate-of-rise sensors, with temperature ratings of 135°F (57°C) or 194°F (90°C).

Markings on the exterior of the detector indicate the specific activation method and temperature rating. All models are identified as either 135°F/57°C or 194°F/90°C. Models equipped with combination fixed temperature/rate-of-rise sensors are marked FX/ROR. Fixed temperature only models are marked FX.

Non-Resettable Fixed Temperature Sensor

The fixed temperature element reacts to heat by responding to a specific temperature setting (135°F or 194°F). The detection method is based on the spring action of a metal contact, held to the metal chamber by a fusible alloy. When the temperature reaches the alloy's melting point, the metal contact will depress the diaphragm, causing the electrical contact to close the circuit. The circular external heat collector is released from the detector to visually indicate that the detector has been activated.

NOTE: 5600 series Fixed Temperature models (5603, 5604, 5623, and 5624) are non-resettable, and cannot be tested.

Self-Restoring Rate-of-Rise (ROR) Sensor

The rate-of-rise element responds to a rapid rise of temperature, approximately 15°F (8.3°C) per minute. As the temperature rises, the air within the sealed chamber expands. Should the chamber air expand faster than it can escape through the calibrated vent, the diaphragm is depressed, and the electrical contact closes the circuit.

NOTE: Only the ROR element of 5600 series combination fixed temperature/ROR models (5601P, 5602, 5621, and 5622) are self-restoring, and may be tested using a hair dryer or heat gun. When testing the ROR element, to prevent the activation of the fixed temperature element, the heat source must not exceed the fixed temperature rating of the detector.

Table 1. 5600 Series Mechanical Heat Detectors

Model No.	Circuit	Temperature Rating	Thermal Sensor	UL Maximum Spacing (10-foot ceiling)
5601P	Single	135°F (57°C)	Fixed Temperature/Rate of Rise	50-feet x 50-feet
5602	Single	194°F (90°C)	Fixed Temperature/Rate of Rise	50-feet x 50-feet
5603	Single	135°F (57°C)	Fixed Temperature	25-feet x 25-feet
5604	Single	194°F (90°C)	Fixed Temperature	25-feet x 25-feet
5621	Dual	135°F (57°C)	Fixed Temperature/Rate of Rise	50-feet x 50-feet
5622	Dual	194°F (90°C)	Fixed Temperature/Rate of Rise	50-feet x 50-feet
5623	Dual	135°F (57°C)	Fixed Temperature	25-feet x 25-feet
5624	Dual	194°F (90°C)	Fixed Temperature	25-feet x 25-feet

NOTE: Refer to NFPA72 guidelines for spacing reductions when ceiling heights exceed 10 feet.

Mounting Bracket

All 5600 series detectors are equipped with a mounting bracket that includes mounting slots to accommodate single-gang, 3/4" octagonal, and 4" octagonal electrical boxes, as well as 4" square boxes equipped with a plaster ring (Figure 1). The mounting bracket is reversible to accommodate flush-mount and surface-mount installations (Figure 2).

Figure 1. Bracket Mounting Locations:

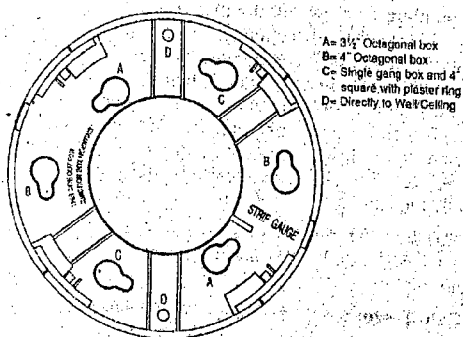
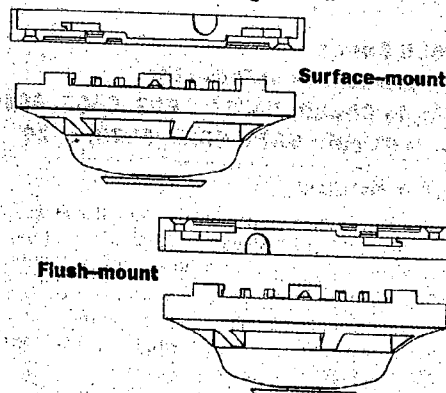


Figure 2. Reversible Mounting Bracket:



The non-polarized screw terminals on the back of the detector will accept 14-22 AWG wire. For best system performance, all wiring should be installed in separate grounded conduit; do not mix fire alarm system wiring in the same conduit as any other electrical wiring. Twisted pair may be used to provide additional protection against extraneous electrical interference.

Wire connections are made by stripping approximately 1/4" of the insulation from the end of the feed wire, inserting it into the proper base terminal, and tightening the screw to secure the wire in place.

Wiring Installation Guidelines

All wiring must be installed in compliance with the National Electrical Code, applicable state and local codes, and any special requirements of the local Authority Having Jurisdiction. Proper wire gauges should be used. The conductors used to connect heat detectors to the alarm control panel and accessory devices should be color-coded to reduce the likelihood of wiring errors. Improper connections can prevent a system from responding properly in the event of a fire.

Figure 3. Wiring Diagram - Single Circuit Models:

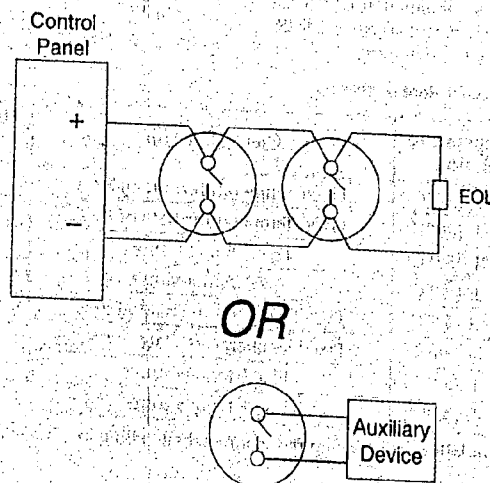
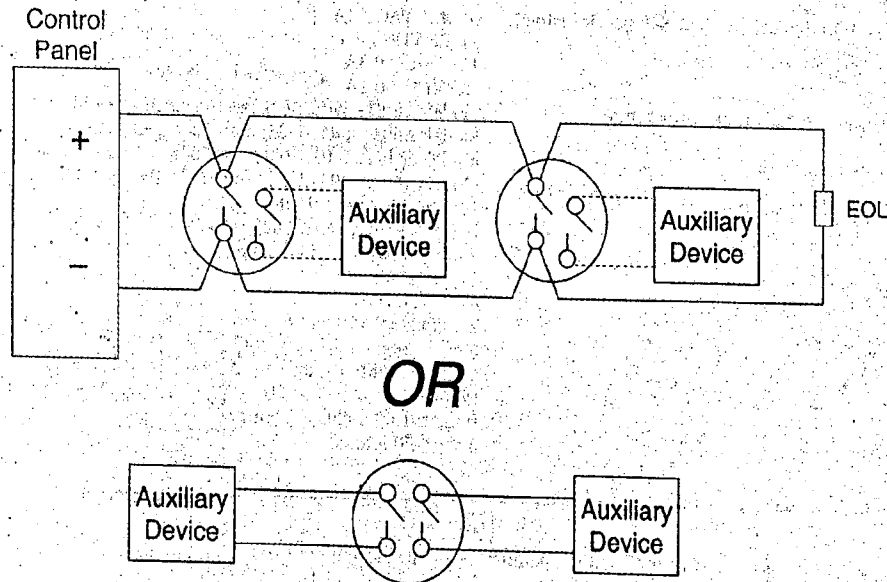


Figure 4. Wiring Diagram - Dual Circuit Models:



Installation

Remove power from the alarm control unit or initiating device circuits before installing detectors.

1. Detach the detector from the mounting bracket by rotating the detector 1/4 turn counter-clockwise.
2. Orient the mounting bracket properly for either a flush- or surface-mount installation (Figure 2).
3. Select the pair of mounting holes suitable for the junction box, (figure 1) and secure the bracket to the box.
4. Connect the wires to the detector per Figure 3 or Figure 4, as applicable.
5. Place the detector onto the mounting bracket by rotating clockwise. The detector will lock into place with a "click".
6. After all detectors have been installed, apply power to the alarm control unit.
7. Test each detector as described in Testing.
8. Reset all the detectors at the alarm control unit.
9. Notify the proper authorities that the system is in operation.

Testing/Maintenance

The rate-of-rise mechanism may be subject to reduced sensitivity over time. Annual testing of the rate-of-rise operation is therefore recommended.

Before testing, notify the proper authorities that maintenance is being performed and the system will be temporarily out of service. Disable the zone or system undergoing maintenance to prevent any unwanted alarms.

Only the ROR element of 5600 series combination fixed temperature/ROR models (5601P, 5602, 5621, and 5622) are self-restoring, and may be tested using a hair dryer or heat gun.

WARNING

When testing the ROR element, to prevent the activation of the fixed temperature element, the heat source must not exceed the fixed temperature rating of the detector.

WARNING

5600 series fixed temperature models (5603, 5604, 5623, and 5624) are non-resettable, and cannot be tested.

WARNING

When using the RRS-MOD with model 2WTA-B, do not mix the 2WTA-B with other model smoke detectors and dry contact closure devices, including mechanical heat detectors, manual pull stations and waterflow switches. Such mixing can cause a direct short on the auxiliary power terminals, damaging the control panel's internal circuitry and/or damage devices connected to the initiating device circuit.

Specifications:

Operating Voltage/Contact Ratings (Resistive):	6 - 125 VAC / 3A 6 - 28 VDC / 1A 125 VDC / 0.3A 250 VDC / 0.1A
Maximum Installation Temperature:	Models 5601P, 5603, 5621, and 5623: 100°F (38°C) Models 5602, 5604, 5622, and 5624: 150°F (65.6°C)
Alarm Temperature:	Models 5601P, 5603, 5621, and 5623: 135°F (57°C) Models 5602, 5604, 5622, and 5624: 194°F (90°C)
Rate-of-Rise Threshold:	15°F (8.3°C) per minute (models 5601P, 5602, 5621, and 5622 only)
Operating Humidity Range:	5 to 95% RH non-condensing
Input Terminals:	14 - 22 AWG
Back Box Mounting:	3½" octagonal 4" octagonal Single gang 4" square with a square to round plaster ring
Dimensions with mounting bracket:	Diameter: 4.57 inches (11.6cm) Height: 1.69 inches (4.3cm)
Weight:	6 oz. (170 grams)

CAUTION

To prevent the activation of the fixed temperature element, the shipping and storage temperature must not exceed 122°F (50°C).

Please refer to insert for the Limitations of Fire Alarm Systems

Three-Year Limited Warranty

System Sensor warrants its enclosed product to be free from defects in materials and workmanship under normal use and service for a period of three years from date of manufacture. System Sensor makes no other express warranty for the enclosed product. No agent, representative, dealer, or employee of the Company has the authority to increase or alter the obligations or limitations of this Warranty. The Company's obligation of this Warranty shall be limited to the replacement of any part of the product which is found to be defective in materials or workmanship under normal use and service during the three year period commencing with the date of manufacture. After phoning System Sensor's toll free number 800-SENSOR2 (736-2672) for a Return Authorization number, send defective units postage prepaid to: System Sensor, Returns

Department, RA # _____, 3825 Ohio Avenue, St. Charles, IL 60174. Please include a note describing the malfunction and suspected cause of failure. The Company shall not be obligated to replace units which are found to be defective because of damage, unreasonable use, modifications, or alterations occurring after the date of manufacture. In no case shall the Company be liable for any consequential or incidental damages for breach of this or any other Warranty, expressed or implied whatsoever, even if the loss or damage is caused by the Company's negligence or fault. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

FCC Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.



Photoelectric Smoke Detector

Models: 2W-B, 2WT-B
4W-B, 4WT-B



**SYSTEM
SENSOR®**

3825 Ohio Avenue, St. Charles, Illinois 60174
1-800-SENSOR2, FAX: 630-377-6495
www.systemsensor.com

156-1800-08R

Before Installing

Please read thoroughly System Sensor manual A05-1003, *Applications Guide for System Smoke Detectors*, which provides detailed information on detector spacing, placement, zoning, wiring, and special applications. Copies of this manual are available from System Sensor at no charge.

NOTICE: This manual shall be left with the owner/user of this equipment.

IMPORTANT: This detector must be tested and maintained regularly following NFPA 72 requirements. At a minimum, cleaning should be performed annually.

General Description

Models 2W-B and 2WT-B are 2-wire photoelectric smoke detectors; models 4W-B and 4WT-B are 4-wire photoelectric smoke detectors. All models incorporate a state-of-the-art optical sensing chamber and an advanced microprocessor. The microprocessor allows the detector to automatically adjust its sensitivity back to the factory setting when it becomes more sensitive due to contaminants settling in its chamber. In order for this feature to work properly, the chamber must never be opened while power is applied to the smoke detector. This includes cleaning, maintenance or screen replacement. Should it become necessary, the screen/sensing chamber is field replaceable. Models 2WT-B and 4WT-B also feature a restorable, built-in, fixed temperature (135°F) thermal detector and are also capable of sensing a freeze condition if the temperature is below 41°F.

All i3 Series detectors are designed to provide open area protection. Two-wire models must be used with compatible UL Listed panels only.

When used with an i3 Series compatible control panel or the i3 Series 2W-MOD module (refer to installation manual D500-46-00), the 2W-B and 2WT-B are capable of generating a "maintenance needed" signal. The 2W-MOD can indicate a need for cleaning, replacement, or a freeze condition (2WT-B only) at the control panel or module.

Installation of the 2W-B, 2WT-B, 4W-B, and 4WT-B detectors is simplified by the use of a mounting base that may be pre-wired to the system, allowing the detector to be easily installed or removed. The mounting base installation is further simplified by the incorporation of features compatible with drywall fasteners.

Two LEDs on the detector provide a local visual indication of the detector's status:

Table 1: Detector LED Modes

	Green LED	Red LED
Power-up	Blink 10 sec	Blink 10 sec
Normal (standby)	Blink 5 sec	—
Out of sensitivity	—	Blink 5 sec
Freeze Trouble	—	Blink 10 sec
Alarm	—	Solid

After an initial power-up delay, the red and green LEDs will blink synchronously once every ten seconds. It will take approximately 80 seconds for the detector to finish the power-up cycle (see Table 2).

Table 2: Power-up Sequence for LED Status Indication*

Condition	Duration
Initial LED Status Indication	80 seconds
Initial LED Status Indication (if excessive electrical noise is present)	4 minutes

*Refer to Electrical Specifications for start-up time in conjunction with panel alarm verification.

NOTE: If, during power-up, the detector determines there is excessive electrical noise in the system such as those caused by improper grounding of the system or the conduit, both LEDs will blink for up to 4 minutes before displaying detector status (see Table 2).

After power-up has completed and the detector is functioning normally within its listed sensitivity range, the green LED blinks once every five seconds. If the detector is in need of maintenance because its sensitivity has shifted outside the listed limits, the red LED blinks once every five seconds. When the detector is in the alarm mode, the red LED latches on. The LED indication must not be used in lieu of the tests specified under **Testing**. In a freeze trouble condition, the red LED will blink once every 10 seconds (refer to Table 1).

To measure the detector's sensitivity, the i3 Series Model SENS-RDR Infrared Sensitivity Reader tool (see Figure 4) should be used.

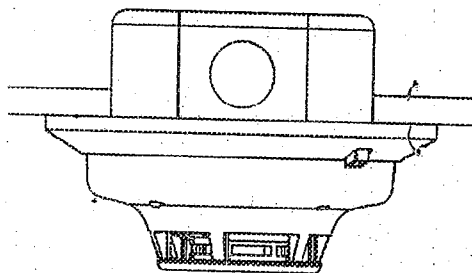
Models 2W-B and 2WT-B also include an output that allows an optional Model RA400Z Remote Annunciator to be connected.

Mounting

Each i3 Series detector is supplied with a mounting base that can be mounted:

1. To a single gang-box, or
2. To a 3½-inch or 4-inch octagonal box, or
3. To a 4-inch square box with a plaster ring, or
4. Direct mount or to ceiling using drywall fasteners (Figure 2).

Figure 1: Mounting of Detector



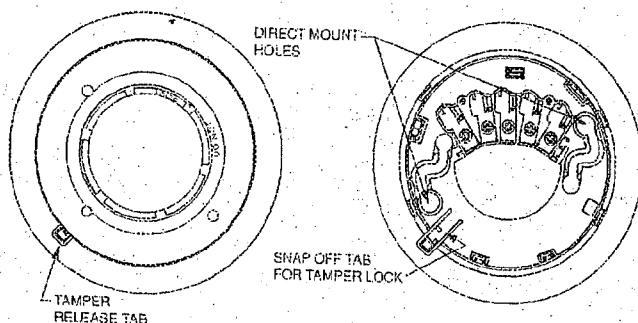
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The i³ Series heads and bases are keyed so that a 2-wire head will only mount to a 2-wire base, and a 4-wire head will only mount to a 4-wire base. The heads and bases are clearly identified as either 2-wire or 4-wire. When mounting the i³ Series, ensure that the head is mounted to the correct base.

Tamper-Resistant Feature

The i³ Series detectors include a tamper-resistant feature that prevents removal from the mounting base without the use of a tool. To engage the tamper-resistant feature, cut the small plastic tab located on the mounting base (Figure 2), and then install the detector. To remove the detector from the base once it has been made tamper resistant, use a small screwdriver to depress the square tamper release tab, located on the skirt of the mounting base, and turn the detector counterclockwise.

Figure 2: Tamper-Resistant Feature



SC226-00

Do NOT Install Detectors in the Following Areas:

- In or near areas where particles of combustion are normally present such as kitchens; in garages (vehicle exhaust); near furnaces, hot water heaters, or gas space heaters.
- In very cold or very hot areas.
- In wet or excessively humid areas, or next to bathrooms with showers.
- In dusty, dirty, or insect-infested areas.
- Near fresh air inlets or returns or excessively drafty areas. Air conditioners, heaters, fans, and fresh air intakes and returns can drive smoke away from the detector.

Consult NFPA 72, the local Authority Having Jurisdiction (AHJ), and/or applicable codes for specific information regarding the spacing and placement of smoke detectors.

CAUTION

Smoke detectors are not to be used with detector guards unless the combination has been evaluated and found suitable for that purpose.

Wiring Installation Guidelines

All wiring must be installed in compliance with the National Electrical Code, applicable state and local codes, and any special requirements of the local Authority Having Jurisdiction.

Proper wire gauges should be used. The conductors used to connect smoke detectors to the alarm control panel and accessory devices should be color-coded to reduce the likelihood of wiring errors. Improper connections can prevent a system from responding properly in the event of a fire.

The screw terminals in the mounting base will accept 14-22 gauge wire. For best system performance, all wiring should be installed in separate grounded conduit; do not mix fire alarm system wiring in the same conduit as any other electrical wiring. Twisted pair may be used to provide additional protection against extraneous electrical interference.

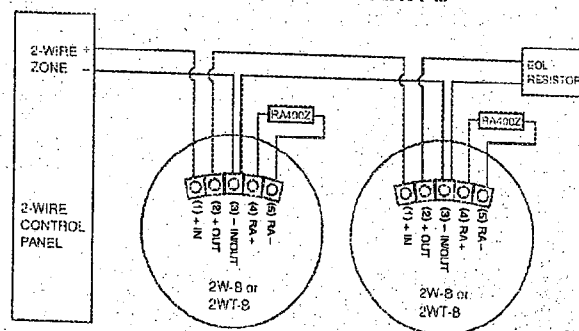
Wire connections are made by stripping approximately 1/4-inch of insulation from the end of the feed wire, inserting it into the proper base terminal, and tightening the screw to secure the wire in place.

Two-Wire Compatibility

System Sensor two-wire smoke detectors are marked with a compatibility identifier located on the label on the back of the product. For two-wire models 2W-B and 2WT-B, connect detectors only to compatible alarm control panels as identified by System Sensor's compatibility chart. This chart contains the current list of detectors and UL Listed compatible control units. A copy of this list is available from System Sensor upon request.

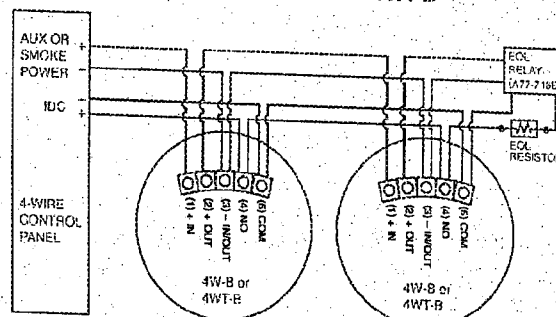
Wiring Diagrams

Figure 3a: Wiring Diagram, 2W-B and 2WT-B



SC133-00

Figure 3b: Wiring Diagram, 4W-B and 4WT-B



SC134-00

2-Wire i3 Detector Wired in Style D Configuration:

CAUTION

Any 2-wire i³ smoke detector (2W-B, 2WT-B, 2WTA-B, or 2WTR-B) wired in the Style D initiating device circuit (IDC) configuration requires the use of a 2W-MOD2 module. This is because fire alarm control panels vary by manufacturer on the implementation of Style D circuits. Therefore, the only way to insure proper operation of 2-wire i³ smoke detectors (2W-B, 2WT-B, 2WTA-B, or 2WTR-B) on Style D IDC's is to use a 2W-MOD2 module. Refer to the 2W-MOD2 installation manual, document D500-46-00, for Style D wiring diagrams. The 2W-MOD2 installation manual may be downloaded from the System Sensor web site at www.systemsensor.com.

Installation

WARNING

Remove power from alarm control unit or initiating device circuits before installing detectors.

NOTE: To install units so that corresponding LEDs are lined up, refer to the "Green LED" indicator on the base.

1. Wire the mounting base screw terminals per Figure 3a or Figure 3b, as applicable.
2. Place detector on the base and rotate clockwise. The detector will drop into the base and lock into place with a "click".
3. After all detectors have been installed, apply power to the alarm control unit.
4. Test each detector as described in **Testing**.
5. Reset all the detectors at the alarm control unit.
6. Notify the proper authorities that the system is in operation.

CAUTION

Dust covers are an effective way to limit the entry of dust into the smoke detector sensing chamber. However, they may not completely prevent airborne dust particles from entering the detector. Therefore, System Sensor recommends the removal of detectors before beginning construction or other dust producing activity. When returning the system to service, be sure to remove the dust covers from any detectors that were left in place during construction.

Testing

Detectors must be tested after installation and following maintenance.

NOTE: Before testing, notify the proper authorities that maintenance is being performed and the system will be temporarily out of service. Disable the zone or system undergoing maintenance to prevent any unwanted alarms.

Ensure proper wiring and power is applied. After power up, allow 30 seconds for the detector to stabilize before testing.

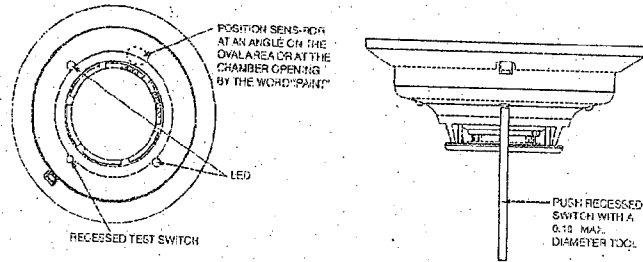
Test i³ Series detectors as follows:

Test Switch

1. An opening for the recessed test switch is located on the detector housing (See Figure 5).
2. Insert a small screwdriver or allen wrench (0.18" max.) into the test switch opening; push and hold.

3. If the detector is within the listed sensitivity limits, the detector's red LED should light within five seconds.

Figure 5: Recessed Test Switch Opening and SENS-RDR Position



50135-00

B. Smoke Entry Test

Hold a smoldering punk stick or cotton wick at the side of the detector and gently blow the smoke through the detector until it alarms.

C. Direct Heat Method (models 2WT-B and 4WT-B only)

Using a 1000-1500 watt hair dryer, direct the heat toward either of the thermistors. Hold the heat source about 12 inches from the detector to avoid damage to the plastic.

NOTE: For the above tests, the detector will reset only after the power source has been momentarily interrupted.

If a detector fails any of the above test methods, its wiring should be checked and it should be cleaned as outlined in the **Maintenance** section. If the detector still fails, it should be replaced.

Notify the proper authorities when the system is back in service.

Loop Verification (models 2W-B and 2WT-B only)

Loop verification is provided by the EZ Walk loop test feature. This feature is for use with i³ Series compatible control panels or the i³ Series 2W-MOD module only. The EZ Walk loop test verifies the initiating loop wiring and provides visual status indication at each detector.

1. Ensure proper wiring and power is applied. Wait approximately six minutes before performing EZ Walk test.
2. Place control panel or module in EZ Walk Test mode (refer to panel manufacturer's manual or 2W-MOD manual D500-45-00).
3. Observe the LEDs on each detector:

Table 3: EZ Walk Test Detector Modes

	Green LED	Red LED
Proper Operation	Double blink 5 sec	—
Out of Sensitivity	—	Double Blink 5 sec
Freeze Condition	—	Double Blink 10 sec

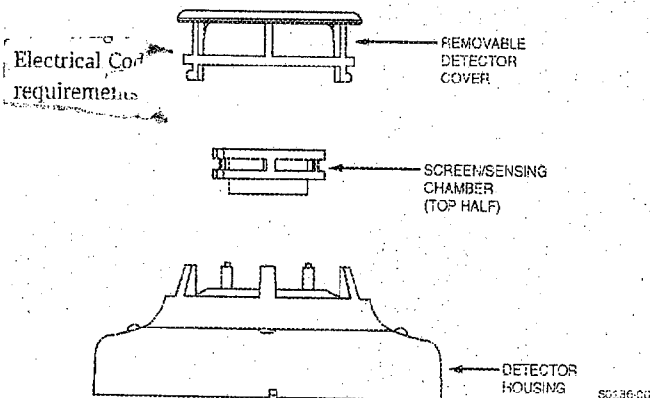
NOTE: The EZ Walk loop test must not be used instead of alarm testing.

Maintenance

NOTE: Before performing maintenance on the detector, notify the proper authorities that maintenance is being performed and the system will be temporarily out of service. Disable the zone or system undergoing maintenance to prevent any unwanted alarms. **Power must be removed from the detector before performing maintenance of any kind.**

1. Remove the detector cover by turning counterclockwise. (See Figure 6.)
2. Vacuum the cover or use canned air to remove debris.
3. Remove the top half of the screen/sensing chamber straight up (Figure 6).
4. Vacuum or use canned air to remove any dust or particles that are present on both chamber halves.
5. Replace the top half of the screen/sensing chamber by aligning the arrow on the screen/sensing chamber with the arrow on the housing. Press down firmly until the screen/sensing chamber is fully seated.
6. Replace the detector cover by placing it over the screen/sensing chamber and turning it clockwise until it snaps into place.
7. Reinstall the detector and test. (See the **Testing** section.)
8. Notify the proper authorities when the system is back in service.

Figure 6: Removing/Replacing Screen/Sensing Chamber



Electrical Specifications		2-wire	4-wire
System Voltage - Nominal:	12/24	12/24	Volts Non-polarized
Min.:	8.5	8.5	Volts
Max.:	35	35	Volts
Max. Ripple Voltage:	30	30	% peak to peak of applied voltage
Max. Standby Current:	50	50	μ A average
Peak Standby Current:	100	—	μ A
Max. Alarm Current:	130	20	mA 12 Volt Systems
(For 2W-B and 2WT-B, panel must limit current)	130	23	mA 24 Volt Systems
Alarm Contact Ratings:	—	0.5	Amp @ 30 V AC/DC
Alarm Reset Time:	0.3	0.3	sec
Max. Start-up Capacitance:	0.1	—	μ F
Latching Alarm:	Reset by momentary power interruption		
Maximum Initial Start-up Time:	45	15	sec
Alarm Verification*			
Start-up Time:	15	15	sec

Physical Specifications

Heat Sensor	
(Model 2WT-B and 4WT-B):	135°F (57.2°C)
Freeze Trouble	
(Model 2WT-B and 4WT-B):	41°F (5°C)
Operating Temperature Range:	
2W-B and 4W-B:	32 to 120°F (0 to 49°C)
2WT-B and 4WT-B:	32 to 100°F (0 to 37.8°C)
Operating Humidity Range:	0 to 95% RH non-condensing
Storage Temperature Range:	-4 to 158°F (-20 to 70°C)
Diameter (including base):	5.3 inches
Height (including base):	2.0 inches
Weight:	6.3 oz.

*Assumes the panel's alarm verification reset time is 10 seconds or less. Should the alarm verification reset exceed 10 seconds, use the maximum initial start-up time.

Please refer to insert for the Limitations of Fire Alarm Systems

Three-Year Limited Warranty

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Repair Department, RA # _____, 3825 Ohio Avenue, St. Charles, IL 60174. Please include a note describing the malfunction and suspected cause of failure. The Company shall not be obligated to repair or replace units which are found to be defective because of damage, unreasonable use, modifications, or alteration occurring after the date of manufacture. In no case shall the Company be liable for any consequential or incidental damages for breach of this or any other Warranty expressed or implied whatsoever, even if the loss or damage is caused by the Company's negligence or fault. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

FCC Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.



**SYSTEM
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3825 Ohio Avenue, St. Charles, Illinois 60174

800/736-7672, FAX: 630/377-6495

www.systemsensor.com

Selectable Output Strobes, Horns, and Horn/Strobes

For use with the following models: P2R, P2RH, P2RK, P2RHK, P2W, P2WK, P2WH, P2WHK, P4R, P4RH, P4RK, P4W, P4WK, P4WHK, SR, SRH, SRK, SRHK, SW, SWK, SWH, SWHK, SW-CLR-ALERT, PC2R, PC2RH, PC2RK, PC2RHK, PC2W, PC2WK, PC2WH, PC2WHK, PC4R, PC4RH, PC4W, PC4WK, PC4WHK, SCR, SCRH, SCRK, SCRHK, SCW, SCWK, SCWH, SCWHK, SCW-CLR-ALERT, HR, HRK, HW, SR-P, SW-P, SRH-P, SWH-P, P2R-P, P2W-P, P2WH-P, P4W-P, SCW-P, PC2R-P, PC2W-P, PC2WH-P, SRK-P, SRHK-P, P2RK-P, P2RHK-P, SWK-P, SWHK-P, P2WK-P, P2WHK-P, SR-SP, P2R-SP, PC2W-SP, SRK-R, SWK-R, SRHK-R, SWHK-R, P2RK-R, P2WK-R, P2RHK-R, P2WHK-R

NOTE: All -R models are specifically designed for use with the WTP Series of Weatherproof plates

NOTE: When replacing outdoor units; device and back box must be replaced



PRODUCT SPECIFICATIONS

Operating Temperature:	Standard Products	32°F to 120°F (0°C to 49°C)
	K Series	-40°F to 151°F
Humidity Range:	Standard Products	10 to 93% Non-condensing
	K Series	Meets NEMA 4X requirements
Strobe Flash Rate:		1 flash per second
Nominal Voltage:		Regulated 12VDC/FWR or regulated 24DC/FWR
Operating Voltage Range (includes fire alarm panels with built in sync):		8 to 17.5V (12V nominal) or 16 to 33V (24V nominal)
Operating Voltage with MDL Sync Module:		9 to 17.5V (12V nominal) or 17 to 33V (24V nominal)
Input terminal wire gauge:		12 to 18 AWG

NOTE: Strobes will operate at 12 V nominal for 15 & 15/75 candela settings only. Switching between ranges is automatic.

DIMENSIONS FOR PRODUCTS AND ACCESSORIES

WALL PRODUCTS	LENGTH	WIDTH	DEPTH	CEILING PRODUCTS	DIAMETER	DEPTH
Strobes and Horn/Strobes (including lens)	5.6"	4.7"	2.5"	Strobes and Horn/Strobes (including lens)	6.8"	2.5"
	142 mm	119 mm	64 mm		173 mm	64 mm
Horns	5.6"	4.7"	1.3"	SA-WBBC Weatherproof Back Box SA-WBBCW Weatherproof Back Box	7.1"	2.0"
	142 mm	119 mm	33 mm		180 mm	51 mm
SA-WBB Weatherproof Back Box SA-WBBW Weatherproof Back Box	5.7"	5.1"	2.0"	BBSC-2 BBSCW-2 Back Box Skirt	7.1"	2.2"
	145 mm	130 mm	51 mm		180 mm	57 mm
BBS-2	5.0"	5.9"	2.2"	NOTE: SA-WBB, SA-WBBW, SA-WBBC and SA-WBBCW dimensions do not include the two mounting tabs		
BBSW-2 Back Box Skirt	130 mm	152 mm	57 mm			

MOUNTING BOX OPTIONS

2-Wire Indoor Products	4-Wire Indoor Products	K Series Products
4 × 4 × 1½, Single Gang, Double Gang, 4" Octagon	4 × 4 × 1½, Double Gang, 4" Octagon	SA-WBB/W (wall), SA-WBBC/CW (ceiling)

NOTICE: This manual shall be left with the owner/user of this equipment.

GENERAL DESCRIPTION

The SpectraAlert Advance series of notification appliances offers a wide range of horns, strobes, and horn/strobes, for wall and ceiling applications, indoors and outdoors. They are designed to be used in 12 or 24 volt, DC or FWR (full wave rectified) systems. These products are electrically backward compatible with the previous generation of SpectraAlert notification appliances. Horn/strobe products are available in two versions. The 2-wire products fit systems where a single NAC controls both horn and strobe. The 4-wire products are intended for systems which have separate wiring circuits for the horn and strobe. All SpectraAlert Advance products are suitable for use in synchronized systems. The System Sensor MDL module may be used to provide synchronization.

K Series products are designed to be used over a wider range of temperatures and are suitable for use in wet locations.

Wall and ceiling products may be used interchangeably (wall products may be used on the ceiling and ceiling products may be used on the wall.)

FIRE ALARM SYSTEM CONSIDERATIONS

The National Fire Alarm Code, NFPA 72, requires that all horns, used for building evacuation produce temporal coded signals. Signals other than those used for evacuation purposes do not have to produce the temporal coded signal. System Sensor recommends spacing notification appliances in compliance with NFPA 72.

LOOP DESIGN AND WIRING

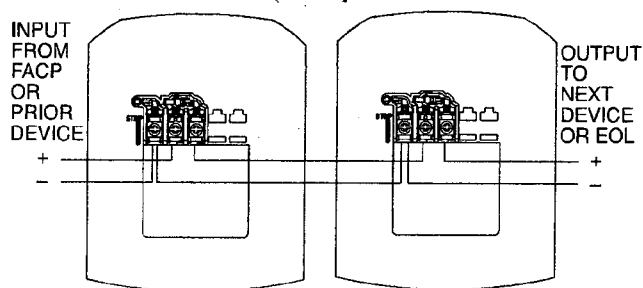
The system designer must make sure that the total current drawn by the devices on the loop does not exceed the current capability of the panel supply, and that the last device on the circuit is operated within its rated voltage. The current draw information for making these calculations can be found in the tables within this manual. For convenience and accuracy, use the voltage drop calculator on the System Sensor website (www.systemsensor.com) or CD-ROM.

When calculating the voltage available to the last device, it is necessary to consider the voltage drop due to the resistance of the wire. The thicker the wire, the smaller the voltage drop. Wire resistance tables can be obtained from electrical handbooks. Note that if Class A wiring is installed, the wire length may be up to twice as long as it would be for circuits that are not fault tolerant.

NOTE: The total number of strobes on a single NAC must not exceed 40 for 24 volt applications or 12 for 12 volt applications. Loop resistance on a single NAC should not exceed 120 ohms for 24 volt and 30 ohms for 12 volt systems.

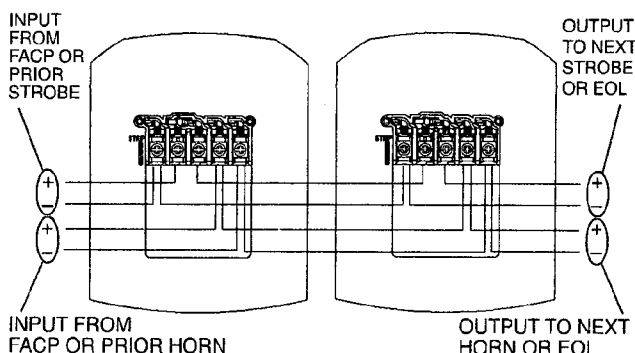
For 4-Wire installations, terminals 1, 2, and 3 connect to the strobe; terminals 4 and 5 connect to the horn. The horn and strobe circuits must be wired independently, and each circuit must be terminated with the appropriate EOL device. Removal of a notification device will result in an open circuit indication on the strobe loop.

FIGURE 1. WIRING 2-WIRE PRODUCTS:



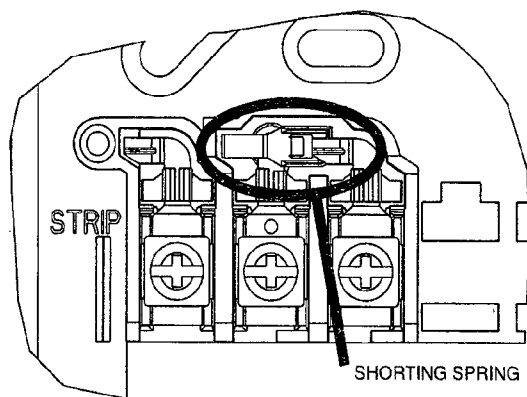
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FIGURE 2. WIRING 4-WIRE PRODUCTS:



A0366-00

FIGURE 3. SHORTING SPRING:



A0368-00

NOTE: A shorting spring is provided between terminals 2 and 3 of the mounting plate to enable wiring checks after the system has been wired, but prior to installation of the final product. This spring will automatically disengage when the product is installed, to enable supervision of the final system.

CANDELA SELECTION

Adjust the slide switch on the rear of the product to position the desired candela setting in the small window on the front of the unit. All products meet the light output profiles specified in the appropriate UL Standards. For K series products used outdoors at low temperatures, listed candela ratings must be reduced in accordance with Table 2. Use Table 1 to determine the current draw for each candela setting. **WIRING DIAGRAMS**

NOTE: SpectraAlert products set at 15 and 15/75 candela automatically work on either 12V or 24V power supplies. The products are not listed for 12V operating voltages when set to any other candela settings. For 4-Wire products, total current draw may be determined by adding current draw for the specific candela selection in Table 1 with the current draw for the specific horn selection in Table 3.

TABLE 1. STROBE CURRENT DRAW (mA) FOR S, SC, P4 & PC4 SERIES:

	Candela	8-17.5 Volts		16-33 Volts	
		DC	FWR	DC	FWR
Standard Candela Range	15	123	128	66	71
	15/75	142	148	77	81
	30	NA	NA	94	96
	75	NA	NA	158	153
	95	NA	NA	181	176
	110	NA	NA	202	195
High Candela Range	115	NA	NA	210	205
	135	NA	NA	228	207
	150	NA	NA	246	220
	177	NA	NA	281	251
	185	NA	NA	286	258

TABLE 2. CANDELA DERATING:

Listed Candela	Candela rating at -40°F (K Series Outdoor Applications Only)
15	Do not use below 32°F
15/75	
30	
75	
95	44
110	70
115	110
135	115
150	135
177	150
185	177

HORN SELECTION

Turn the rotary switch on the back of the product to the desired setting. For horn and 4-wire horn/strobe products, the current draw for each setting is listed in Table 3. For 2-wire horn/strobe products (P2 series), current draws are listed in Tables 4 and 5. The sound output measurement for each horn setting is shown in Table 6.

TABLE 3. HORN CURRENT DRAW (mA) FOR H, P4 & PC4 SERIES:

Pos	Sound Pattern	dA Out	8-17.5 Volts		16-33 Volts	
			DC	FWR	DC	FWR
1	Temporal	High	57	55	69	75
2	Temporal	Medium	44	49	58	69
3	Temporal	Low	38	44	44	48
4	Non-temporal	High	57	56	69	75
5	Non-temporal	Medium	42	50	60	69
6	Non-temporal	Low	41	44	50	50
7	Coded	High	57	55	69	75
8	Coded	Medium	44	51	56	69
9	Coded	Low	40	46	52	50

NOTE: In positions 7, 8, and 9, temporal coding must be provided by the NAC. If the NAC voltage is held constant, the horn output will remain constantly on. Positions 7, 8, and 9 are not available on 2-wire horn/strobe products.

TABLE 4. 2-WIRE HORN/STROBE CURRENT DRAW (mA) FOR P2 AND PC2 STANDARD CANDELA SERIES:

DC Input	8-17.5 Volts		16-33 Volts						
	15 cd	15/75 cd	15 cd	15/75 cd	30 cd	75 cd	95 cd	110 cd	115 cd
Temporal High	137	147	79	90	107	176	194	212	218
Temporal Medium	132	144	69	80	97	157	182	201	210
Temporal Low	132	143	66	77	93	154	179	198	207
Non-temporal High	141	152	91	100	116	176	201	221	229
Non-temporal Medium	133	145	75	85	102	163	187	207	216
Non-temporal Low	131	144	68	79	96	156	182	201	210
FWR Input									
Temporal High	136	155	88	97	112	168	190	210	218
Temporal Medium	129	152	78	88	103	160	184	202	206
Temporal Low	129	151	76	86	101	160	184	194	201
Non-temporal High	142	161	103	112	126	181	203	221	229
Non-temporal Medium	134	155	85	95	110	166	189	208	216
Non-temporal Low	132	154	80	90	105	161	184	202	211

TABLE 5. 2-WIRE HORN/STROBE CURRENT DRAW (mA) FOR P2 AND PC2 HIGH CANDELA RANGE SERIES:

Sound Pattern	16-33 Volts Volts DC				16-33 Volts Volts FWR			
	135 cd	150 cd	177 cd	185 cd	135 cd	150 cd	177 cd	185 cd
Temporal High	245	259	290	297	215	231	258	265
Temporal Medium	235	253	288	297	209	224	250	258
Temporal Low	232	251	282	292	207	221	248	256
Non-temporal High	255	270	303	309	233	248	275	281
Non-temporal Medium	242	259	293	299	219	232	262	267
Non-temporal Low	238	254	291	295	214	229	256	262

TABLE 6. HORN OUTPUT (dBA) IN UL REVERBERANT ROOM:

Switch Position	Sound Pattern	dA	8-17.5 Volts**		16-33 Volts**		24 V Nominal Measurements			
			DC	FWR	DC	FWR	Reverberant		Anechoic	
							DC	FWR	DC	FWR
1	Temporal	High	78	78	84	84	88	88	99	98
2	Temporal	Medium	74	74	80	80	86	86	96	96
3	Temporal	Low	71	73	76	76	83	80	94	89
4	Non-temporal	High	82	82	88	88	93	92	100	100
5	Non-temporal	Medium	78	78	85	85	90	90	98	98
6	Non-temporal	Low	75	75	81	81	88	84	96	92
7*	Coded	High	82	82	88	88	93	92	101	101
8*	Coded	Medium	78	78	85	85	90	90	97	98
9*	Coded	Low	75	75	81	81	88	85	96	92

*Horn & 4-wire Horn/Strobe only. ** Minimum dB rating for Operational Voltage Range as per UL 464.

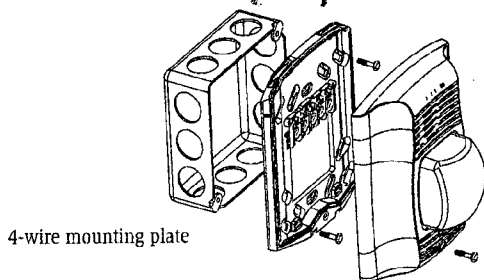
MOUNTING INDOOR WALL OR CEILING PRODUCTS

1. Attach mounting plate to junction box as shown in Figures 4 and 5. The mounting plate is compatible with 4-inch square, double gang, and 4-inch octagon junction boxes (2-wire products may be used with a single gang box). If using a back box skirt, attach the mounting plate to the skirt and then attach the entire assembly to the junction box (see Figures 6 and 7).
2. Connect field wiring to terminals, as shown in Figures 1 and 2.
3. If the product is not to be installed at this point, use the paint cover to prevent contamination of the mounting plate. (For indoor models only)
4. To attach product to mounting plate, remove the paint cover, then hook tabs on the product housing into the grooves on mounting plate.
5. Then, swing product into position to engage the pins on the product with the terminals on the mounting plate. Make sure that the tabs on the back of the product housing fully engage with the mounting plate.
6. Secure product by tightening the single mounting screw in the front of the product housing. For tamper resistance, the standard captivated mounting screw may be replaced with the enclosed Torx screw.

K SERIES MOUNTING

1. K Series products may be used indoors or outdoors. They must be installed using the proper SpectraAlert Advance weatherproof back box (SA-WBB, SA-WBBW, SA-WBBC or SA-WBBCW). Do not attempt to use boxes other than the ones supplied with the product.
2. The wall mount box (SA-WBB or SA-WBBW) must be mounted with its internal post in the lower left corner, as shown in Figure 8.
3. Threaded holes are provided in the sides of the box for 3/4-inch conduit adapters. Knockout plugs in the back of the box can be used for 3/4-inch rear entry. Unused holes must be sealed. Plugs and O-Rings are provided with the box for this purpose.
4. It is the responsibility of the installer to make sure that all openings and connections are sealed properly. Outdoor installations that are protected from direct exposure to rain are still subject to condensation or leakage through hidden areas, such as a soffit.
5. Water may pool on the back box due to condensation or direct exposure to rain or snow. Use watertight fittings for all wiring connections, including the knockout plugs on the back of the box. When using plastic plugs to fill unused threaded holes, apply teflon tape and/or silicone sealant to reduce the chance of leakage.
6. Attach the mounting plate to the weatherproof back box using the four unpainted screws.
7. Follow steps 2 - 6 of the indoor mounting instructions to wire and attach the product.

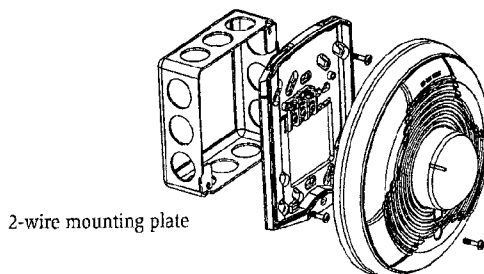
FIGURE 4. WALL MOUNT PRODUCT:



4-wire mounting plate

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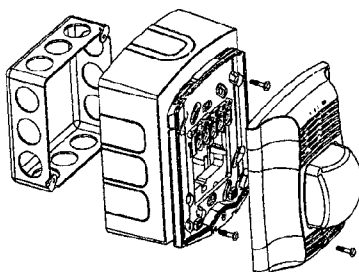
FIGURE 5. CEILING MOUNT PRODUCT:



2-wire mounting plate

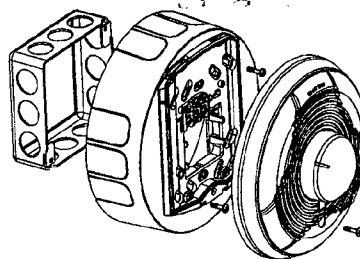
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FIGURE 6. WALL MOUNT PRODUCT WITH BACK BOX SKIRT:



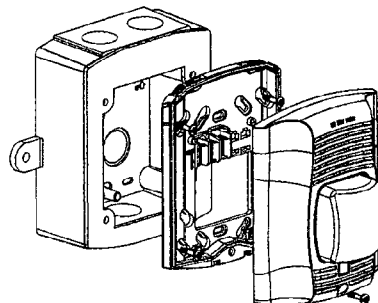
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FIGURE 7. CEILING MOUNT PRODUCT WITH BACK BOX SKIRT:



A0370-00

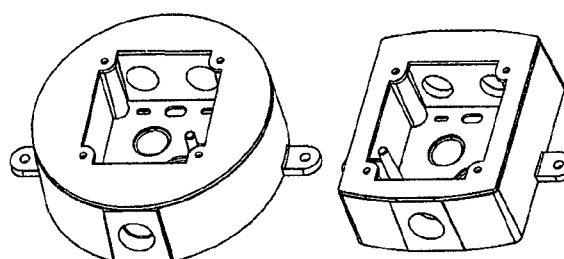
FIGURE 8. WALL MOUNT HORN/SROBE WITH WEATHERPROOF BACKBOX:



A0418-00

NOTE: Use all four mounting plate screws when installing outdoor units.

FIGURE 9. WALL AND CEILING MOUNT WEATHERPROOF BACKBOXES:



A0417-00

NOTE: Wall and Ceiling models may be used interchangeably (wall products may be used on the ceiling and ceiling products may be used on the wall).

Please refer to insert for the Limitations of Fire Alarm Systems

⚠ WARNING

The Limitations of Horn/Strobes

The horn and/or strobe will not work without power. The horn/strobe gets its power from the fire/security panel monitoring the alarm system. If power is cut off for any reason, the horn/strobe will not provide the desired audio or visual warning.

The horn may not be heard. The loudness of the horn meets (or exceeds) current Underwriters Laboratories' standards. However, the horn may not alert a sound sleeper or one who has recently used drugs or has been drinking alcoholic beverages. The horn may not be heard if it is placed on a different floor from the person in hazard or if placed too far away to be heard over the ambient noise such as traffic, air conditioners, machinery or music appliances that may prevent alert persons from hearing the alarm. The horn may not be heard by persons who are hearing impaired.

NOTE: Strobes must be powered continuously for horn operation.

The signal strobe may not be seen. The electronic visual warning signal uses an extremely reliable xenon flash tube. It flashes at least once every second. The strobe must not be installed in direct sunlight or areas of high light intensity (over 60 foot candles) where the visual flash might be disregarded or not seen. The strobe may not be seen by the visually impaired.

The signal strobe may cause seizures. Individuals who have positive photic response to visual stimuli with seizures, such as persons with epilepsy, should avoid prolonged exposure to environments in which strobe signals, including this strobe, are activated.

The signal strobe cannot operate from coded power supplies. Coded power supplies produce interrupted power. The strobe must have an uninterrupted source of power in order to operate correctly. System Sensor recommends that the horn and signal strobe always be used in combination so that the risks from any of the above limitations are minimized.

Three-Year Limited Warranty

System Sensor warrants its enclosed product to be free from defects in materials and workmanship under normal use and service for a period of three years from date of manufacture. System Sensor makes no other express warranty for this product. No agent, representative, dealer, or employee of the Company has the authority to increase or alter the obligations or limitations of this Warranty. The Company's obligation of this Warranty shall be limited to the replacement of any part of the product which is found to be defective in materials or workmanship under normal use and service during the three year period commencing with the date of manufacture. After phoning System Sensor's toll free number 800-SENSOR2 (736-7672) for a Return Authorization number, send defective units postage prepaid to: System Sensor, Returns

Department, RA # _____, 3825 Ohio Avenue, St. Charles, IL 60174. Please include a note describing the malfunction and suspected cause of failure. The Company shall not be obligated to replace units which are found to be defective because of damage, unreasonable use, modifications, or alterations occurring after the date of manufacture. In no case shall the Company be liable for any consequential or incidental damages for breach of this or any other Warranty, expressed or implied whatsoever, even if the loss or damage is caused by the Company's negligence or fault. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

FCC Statement

SpectraAlert Strobes and Horn/Strobes have been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses,

and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.