

Requests for Service (/Main.aspx)

#3822 Assigned Investigation

Assigned to: Damian Roy Requested by: Paul Leclair

Technical Services

Traffic Requests

Opened: 3/27/2014

Entered By: Joel Fleming

Location: 255 Colchester Avenue

Due: 4/26/2014

Resident is requesting that corner properties of 2 resident parking streets would be eligible for resident only parking on either of the two streets. See attached

Work History Add Work History

Attachments

Attach Date	Staff	Attachment
03/27/2014 3:57 PM	Joel Fleming	View File (/Attachments/498.pdf)

Date	Staff Person	Description
04/02/2014	Joel Fleming	Staff has visted the site and determined that there are signalized crosswalks within 200 feet on either direction of this requested crosswalk location. Staff feels that it would not be a good idea to install a crosswalk at this location.

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Upload Attachment

Details

Requested by Solveig.

Requests for Service (/Main.aspx)

#4760 Assigned New

Technical Services

Traffic Requests

Location: 21 Buell Street

Doug has requested resident parking on the south section of Buell St.

Attachments

No Attachments

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Assigned to: Damian Roy **Requested by:** Doug Boyden

Opened: 7/14/2014

Entered By: Colin Brett

Due: 8/14/2014

Work History

[Add Work History](#)

Date	Staff Person	Description
09/15/2014	Colin Brett	staff is waiting for the petition from residents for this requests Details

Requests for Service (/Main.aspx)

#4798 Assigned New

Technical Services Traffic Requests

Location: 59 Saint Mary Street

Customer came to DPW counter and submitted a written request for parking restrictions in the neighborhood of Manhattan Dr/Interval Ave/St. Mary St. See attached.

Attachments

Attach Date	Staff	Attachment
07/18/2014 1:04 PM	Helen Plumley	View File (/Attachments /665.pdf)

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Upload Attachment

Assigned to: Damian Roy **Requested by:** Tammie Brownell

Opened: 7/18/2014 **Entered By:** Helen Plumley

Due: 8/17/2014

Work History

[Add Work History](#)

Date	Staff Person	Description
08/20/2014	Colin Brett	Staff talked to Tammie on the phone, briefly discussing resident parking options Details
08/04/2014	Helen Plumley	Customer called to follow up on her initial request. Per customer, Colin's phone message says he's out 'til the 11th. She'll call him back then. Details

Requests for Service (/Main.aspx)

#4837 Assigned New

Technical Services	Traffic Requests
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Location: Bilodeau Parkway

Per today's e-mail, requesting resident parking options to park on Bilodeau Pkwy, even though they reside at 47 Bilodeau Ct. BPD referred customer to City Atty, who instructed customer to put something in writing.

E-mail: I am writing to request that properties in corner lots will be given the choice for parking on one of the streets they limit. We live in 47 Bilodeau Court. Our main entrance and garage is on the Bilodeau Park Way not on the postal address. Our house is on an Island which means that three sides of the house face Bilodeau Park Way and not the street of the postal address. We need to be able to get a parking permit for Bilodeau Park Way where there is more available parking and we can access the garage and the main entrance to our house. I went to the Police Department that send me to the Office of the City Attorney that send me to write this letter. Please let me know what does it take to get the appropriate parking permit for the location of our house. Thank you and I am looking forward to your response. I e-mailed customer letting her know I created a service request for Colin.

Assigned to: Damian Roy **Requested by:** Carolina Rodriguez

Opened: 7/25/2014 **Entered By:** Helen Plumley

Due: 8/24/2014

Work History [Add Work History](#)

No Work History

Attachments

No Attachments

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[Upload Attachment](#)

Requests for Service (/Main.aspx)

#4917 Assigned New

Location: 84-86 Maple St

See attached letter dated 8/04/14 from Ms. Greenough, requesting "Resident Parking Permits" for her property at 84-86 Maple Street.

Attachments

Attach Date	Staff	Attachment
09/01/2015 2:17 PM	Chapin Spencer	View File (/Attachments /1936.pdf)
10/16/2014 3:15 PM	Helen Plumley	View File (/Attachments /808.pdf)
08/11/2014 8:40 AM	Helen Plumley	View File (/Attachments /698.pdf)
08/07/2014 3:03 PM	Helen Plumley	View File (/Attachments /697.pdf)

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Assigned to: Damian Roy **Requested by:** Theresa J. Greenough

Opened: 8/7/2014

Entered By: Helen Plumley

Due: 9/6/2014

Work History

[Add Work History](#)

Date	Staff Person	Description
09/01/2015	Chapin Spencer	Received 8-26-15 communication from Ms. Greenough. Attached here. Details
10/16/2014	Helen Plumley	Rec'd correspondence from Mrs. Greenough re: previous request for resident parking at 84-86 Maple St. See attached. Details
08/11/2014	Helen Plumley	I uploaded e-mail chain between Nathan and John King. Details
08/07/2014	Helen Plumley	I scanned the letter to Nathan Lavery, Commissioner chair, and Chapin for their info. Details
08/07/2014	Helen Plumley	NOTE: Ms. Greenough's letter is addressed to "Public Works Commission." Details

Requests for Service (/Main.aspx)

#5805 Assigned Long Term Deferred

Technical Services

Traffic Requests

Location: No. Prospect & Loomis

Resident was issued a ticket for parking on Loomis (as they have always done) because his address is No. Prospect. Ticket was fought and repealed. Current Resident Only Parking ordinance does not consider corner properties where the address and front entrance do not coincide. Resident would like this to be rectified.

Attachments

No Attachments

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Assigned to: Damian Roy **Requested by:** Eric Jacobs

Opened: 12/22/2014 **Entered By:** Damian Roy

Due: 1/21/2015

Work History

[Add Work History](#)

Date	Staff Person	Description
04/16/2015	Helen Plumley	Mr. Jacobs spoke during the Public Forum portion of the April 15th DPW Commission meeting. Requesting that property owners (vs. tenants) owning a corner lot property in a "Resident Only Parking" area, be allowed to choose the street they want to be assigned to park on (out of the two streets). Phone: 355-6750. Helen will remind Nicole that he wishes to talk with her. Details
03/20/2015	Damian Roy	I spoke with Norm Baldwin and had emails with John King and Gene Bergman, the ordinance will stand as is until the Resident Parking Study is completed. I've communicated this to Mr. Jacobs and encouraged his participation in the Study. No other progress can be made with this request until this Study is completed. Details

Requests for Service (/Main.aspx)

#5911 Assigned New

Assigned to: Damian Roy **Requested by:** Livia K. DeMarchis

Opened: 1/21/2015

Entered By: Damian Roy

Due: 1/28/2015

Traffic Bulletin Boards

Location: 357 South Prospect Street

Resident requests full time Resident Only Parking.
Currently has R.O. Parking 12:00am - 6:00am.

Work History

[Add Work History](#)

Attachments

Date	Staff Person	Description
01/21/2015	Damian Roy	Spoke with Ms.DeMarchis and received an email (attached). Sent her a petition form with instructions. Awaiting her petition results. Details

Attach Date	Staff	Attachment
01/21/2015 4:19 PM	Damian Roy	View File (/Attachments /869.msg)

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[Upload Attachment](#)

Requests for Service (/Main.aspx)

#6720 Assigned

New

[Technical Services](#)
[Traffic Requests](#)
Location: 13 Curtis Ave

The dog park situated off of Starr Farm Road in the New North End has grown tremendously over the past several years to a point that the current parking lot cannot meet the demands of the dog park visitations. I have had to ask people to move there cars from parking so close to my driveway that it was sometimes very tight to turn into my house. There are several other reasons that the parking signs would be beneficial to the locals, the first being that the park hours are already a burden on the residents and that parking on the street in front of the homes would create the illusion that the residents are all for that and the case is that we are not. Others reasons that create a burden on the local is that when people park in front of the houses the first thing the dogs does is urinate on the lawns before they get to the park. As a security matter, there are many children in the neighborhood that play on the street and the extra traffic coming and going all day creates a greater concern for there safety. One of the major concerns is that the actual park is across the street from our homes in a wooded area, and when cars park in front of the residents homes people get nervous that there could be a pedophile in the area and could be driving any one of the cars. One incident last year was very eye opening for me, there was a time when you could step out of the house to go to the store and it was safe to leave the garage door open, well last year I came home from going to the store there was a guy in my garage. I asked the guy what he was doing and he said that he thought he was at a friends house. I thought it was odd that when asked of him to supply his friends name he needed time to make up a name. I can go on but you get the point.

I do hope that the dog park does not merit more attention than the local residential taxpayer.

Attachments

Assigned to: Damian Roy **Requested by:** Pete Carroll**Opened:** 4/15/2015**Entered By:** Valerie Ducharme**Due:** 6/14/2015

Work History

[Add Work History](#)

Date	Staff Person	Description
04/15/2015	Valerie Ducharme	Pete's Response - That's a great question, I believe a sign that would encourage people not to park on the street if they don't live or are visiting as a quest of a resident. Maybe a sign that reads " parking for residents only, others will be towed at owners expense". Can we put our heads together to come up with a sign that will be exceptable. There must be signage in the city that exists that we can copy or at least use as a template to start from. Let me know what your thoughts are. Details
04/15/2015	Valerie Ducharme	Thank you for your email. I just want to make sure I put your request in for the right description: Val's Response -Are you looking for Resident only Parking or No parking signs for certain areas. Details

Requests for Service (/Main.aspx)

#7764 Assigned New

Technical Services
 Traffic Requests

Location: Adams Street

Resident called C/T office and expressed concern that Adams St was the only street in neighborhood where non-residents can park on street. He wants to talk to someone in the City who can explain on-street parking policy.

Attachments

No Attachments

No file selected.

[Upload Attachment](#)

Assigned to: Damian Roy **Requested by:** Ken Miller

Opened: 6/11/2015

Entered By: Chapin Spencer

Due: 8/10/2015

Work History

[Add Work History](#)

Date	Staff Person	Description
08/18/2015	Valerie Ducharme	Customer called today. Wants resident only parking and possibly One side of street Parking only! Please call today! Details

Requests for Service (/Main.aspx)

#8302 Assigned New

Assigned to: Damian Roy **Requested by:** Christine Hadsel

Opened: 7/27/2015

Entered By: Valerie Ducharme

Due: 9/25/2015

Work History

[Add Work History](#)

[Technical Services](#) [Traffic Requests](#)

Location: South Willard ST

Would like this block resident only parking all day - between Bayview & Howard

Attachments

Attach Date	Staff	Attachment
07/27/2015 2:46 PM	Valerie Ducharme	View File (/Attachments /1781.pdf)

Date	Staff Person	Description
08/26/2015	Damian Roy	Staff met with Ms. Hadsel to discuss the reasons behind her request. Ms. Hadsel states that each year in the fall Champlain College students park on this block increasing the difficulty of sight distances and she spends time contacting the college to fix the problem. This creates problems with the college as it takes significant time for the college to verify vehicle ownership to students. This block of S Willard has parking restrictions around driveways to increase sight distances - an unique feature in the city. Details

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[Upload Attachment](#)

Requests for Service (/Main.aspx)

#8662 Assigned New

Technical Services | Traffic Requests

Location: Overlake Park Burlington, Vermont

Other

Numerous cars parked on street between 8-4 when no parking allowed (typical situation). No enforcement up here, but that's not real problem. These cars are legit visitors of residents. We need a change in parking policy here to allow residents to park here.

View SeeClickFix

Attachments

Attach Date	Staff	Attachment
08/27/2015 10:45 AM	SeeClickFix	View File (http://seeclickfix.com/files/issue_images/0037/4182/IMG_4278.jpg)

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Assigned to: Damian Roy **Requested by:** See,Click,Fix
Opened: 8/27/2015 10:23:36 AM **Entered By:** SeeClickFix
Due: 8/30/2015 10:23:36 AM

Work History Add Work History

Date	Staff Person	Description
08/31/2015	Damian Roy	Staff evaluated and presented this same request to the PWC in November 2014. Details

Requests for Service (/Main.aspx)

#8907 Assigned New

Technical Services	Traffic Requests
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Location: Howard at St. Paul

Howard Street before St. Paul - terrible parking - Dunwright cab operates out of nearby house (maybe above pizza?), Pizza parking, Tom Girl parking, window washing business - can't get in and out of driveways - cars park all the way to the driveway entrance - problems from St. Paul around and into Caroline - worst problem on 1st block Howard and 1st block of Caroline

Was initially interested in Resident Parking but is open to other options.

Attachments

No Attachments

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Assigned to: Damian Roy **Requested by:** Robyn Schenck

Opened: 9/16/2015

Entered By: Nicole Losch

Due: 11/15/2015

Work History

[Add Work History](#)

No Work History

Timeline Overview

Inspector Ianelli's notes

The order from the inspector

The report of the inspector

Ordinances related to stairways/Porches and Means of egress

The City of Burlington Hardwired smoke and Carbon monoxide detector guidelines*

Contains the ordinances for smoke/CO – Chapter 18

VT Division of Fire Safety - Smoke alarm specification sheet

VT Division of Fire Safety - Carbon Monoxide specification sheet

Photos of 199 S. Union

VT Division of Fire Safety - Requirements for handrails and guardrails



CODE ENFORCEMENT OFFICE

645A Pine St, PO Box 849
Burlington, VT 05402-0849
VOICE (802) 863-0442
FAX: (802) 652-4221

To: Public Works Commission
From: William Ward/Director of Code Enforcement
Date: February 17, 2016
Subject Address: 199 South Union Street

Property owner: Chris Khamnei
Date of Appeal: January 15, 2015
Appealed items: Items 2, 4 and 5 of Inspection report

Code Enforcement inspection timeline for 199 South Union Street

- December 14, 2015** – Routine Housing Inspection completed – Deficiencies found
- December 16, 2015** – Inspection report and order issued for 1st F/U Inspection Scheduled January 21, 2016.
- January 13, 2016** - An extension of 30 days was requested by property owner due to the departure of a maintenance worker.
- January 14, 2016** - Partial extension granted until February 18 2016 –All Items except items 1 and 2 –
- January 15, 2016** – Appeal received from property owner regarding all items on the deficiency list
- February 18, 2016** **Current inspection scheduled prior to appeal notice**

Requested action from the Housing Board of Review

- 1. Uphold the Code Enforcement decision that the expired smoke/co detectors should be replaced according to the inspector’s order.**
- 2. Require that the maintenance records for the Smoke/CO detectors be provided to the Code Enforcement Director according to City Ordinance Section 18-101.**
- 3. Uphold the Code Enforcement decision that Item #4 and Item #5 regarding handrails on stairways are required to be “maintained safe”.**

Inspector notes on file for Kim Ianelli

KI- P. Maurey and I met property manager david at building. smoke/co detectors were mostly from 2005 and 2006 except for units 4 and 8. The detectors in unit 4 appeared dirty but were dated 2015. All heat tags expired in 2012 or 2013 if there was a tag. Many units also had baseboard electric but multiple tenants had portable space heaters. Unit 10's heater is red tagged, unit 12 heater not installed yet. EMP online but front deck and back deck need paint as well as trim touch up. Graspable handrails needed on fire escape and stairs to unit 11. David was not happy that I assumed detectors needed to be updated but he could not provide me with the information as to their date of manufacture and also showed me that he does not understand that they have a recommended service life, the ones I could reach I did to verify. Unit 10 appeared to be two basement apartments at one time combined into one as there was 2 beds and 2 baths and 2 kitchen sinks, the back kitchen sink was not being used but still has water running to it. Unit 10 also has red tagged heater and the gas heater was not hooked up in unit 12.



CODE ENFORCEMENT OFFICE

645A Pine St, PO Box 849
Burlington, VT 05402-0849
VOICE (802) 863-0442
FAX: (802) 652-4221

December 15, 2015

Chris Khamnei
82 Overlake Park
Burlington, VT 05401

RE: Routine Inspection of 199 South Union Street, Inspection 301964

Dear Owner(s):

Thank you for your cooperation with the routine inspection I conducted on Monday, December 14, 2015 at 10:00:00 AM. My findings are included in this Order. Each deficiency listed must be corrected by the compliance date listed for that item.

A re-inspection has been scheduled for January 21, 2016 at 1:00:00 PM. Tenants must be notified at least 48 hours in advance. All areas of the property must be accessible. Please contact me at least 24 hours in advance, sooner if possible, if this needs to be rescheduled for any reason.

You may submit a written request for an extension of compliance date(s) if you need more time to complete repairs for a valid reason. Extension requests must include the reason the request is necessary and the extended compliance date requested for each item. **Requests must be submitting in writing on our extension request form; verbal requests will not be accepted.** You may obtain an extension request form by phone, at our Office, or on the web at <http://www.burlingtonvt.gov/codeenforcement>. The completed extension request, with all required information, must be approved by our office prior to the compliance date in order to avoid re-inspection fees. For this reason, and because application for an extension does not guarantee that it will be granted, you are encouraged to apply for an extension as early as possible if you anticipate difficulties with the Order compliance date(s).

For information only, please be advised that if this office is unable to verify compliance with the Order by the compliance date(s) and a written extension has not been granted, a \$60.00 re-inspection fee per unit will be charged. You may also be ticketed for the Minimum Housing Standards violations and the rental certificate of compliance may be revoked. Failure to comply with this Order is also a criminal offense.

The decisions stated in this Order and report may be appealed in writing within thirty (30) days of the date of this correspondence, addressed to the Director of the Code Enforcement Office.

1/22/2016 199 South Union Street 301964

All plumbing, electrical, and building work performed must conform to applicable Codes and City Ordinances and necessary permits must be procured through the appropriate Inspection Services Office of the Public Works Department (863-9094). Any exterior repairs/modifications or change of use may also be subject to review by the Planning and Zoning Department (865-7188). It is your responsibility to check with these Departments regarding permit requirements. A copy of this Order must be presented at time of application for permits.

Safety codes protect everyone, and we appreciate your time and assistance in keeping Burlington a safe and attractive community. Please feel free to contact me at 802-652-4235 if you have any questions or concerns.

Sincerely,

A handwritten signature in blue ink, appearing to read "Kim Ianelli".

Kim Ianelli
Minimum Housing Inspector

IN: 301964

Inspection Detail for: 199 South Union Street

Inspection Date: Dec 14, 2015 Inspector: Kim Ianelli

Page 1 of 4

Unit/Area

All Units and hallway (Item 1 of 10)

Finding: No Inspection tag on units. All fuel burning heating systems must be inspected every 2 years and serviced and certified with a tag issued to the verified contractor by the Department of Public Works.(DPW)

Remedy: Have a certified technician inspect and certify that system is functioning and operating in a safe manner, with proof of inspection stated on tag issued by DPW and placed in a conspicuous place on the unit

Non Complied

Correct By: Jan 21, 2016

Code Section: Heating and cooking equipment

18-86 All cooking equipment shall be maintained so as to be free from fire, health and accident hazards.

All units except 4 and 8 (Item 2 of 10)

Finding: Smoke/CO detectors do not meet required standards: Depending on the manufacturer Smoke/co detectors have an average service life of 5-7 years from date of manufacture Smoke detectors have an average service life of 10 years from date of manufacture.

Remedy: Replace smoke/CO detectors to code. Carbon monoxide detectors must be UL 2034 listed or approved by a nationally recognized independent testing laboratory. Installation must be in the vicinity off sleeping areas and on every floor of the dwelling, in accordance with the manufacturer's instructions and State law. City of Burlington electrical permit required for electrical work.

Non Complied

Correct By: Jan 21, 2016

Code Section: Smoke detectors

18-99 Smoke detectors/alarms shall be properly installed and shall be maintained in good working condition.

Decks and Trim (Item 3 of 10)

Finding: Deteriorated painted surfaces found on more than 1 square foot (sf)(aggregate)

Remedy: Promptly and safely repair and/or stabilize deteriorated surfaces using lead safe work practices; do not use prohibited work practices; record repair on EMP compliance statement.

Non Complied

Correct By: Jun 1, 2016

Code Section: Paint

18-112 (a) (1), (2) The interior and exterior of pre-1978 rental housing shall be free from deteriorated painted surfaces more than 1 square foot (sf) in the aggregate;

IN: 301964

Inspection Detail for: 199 South Union Street

Inspection Date: Dec 14, 2015 Inspector: Kim Ianelli

Page 2 of 4

Unit/Area

Fire Escape (Item 4 of 10)

Finding: Egress stairway without graspable handrail.

Remedy: Install graspable handrail to code: 34 to 38 inches above surface of tread, round 1 1/4 to 2 inches in diameter. Building permit may be required.

Non Complied

Correct By: Jan 21, 2016

Code Section: Means of egress

18-95 Egress paths shall be safe to use and shall conform to the requirements of the City building code.

Stairs to unit 11 (Item 5 of 10)

Finding: Exterior stairway lacks a graspable handrail

Remedy: Install exterior stairway graspable handrail to code: 34 to 38 inches above surface of tread, round 1 1/4 to 2 inches in diameter.

Non Complied

Correct By: Jan 21, 2016

Code Section: Stairways and porches

18-74 Every inside and outside stair, railing and any appurtenance thereto shall be safe to use and capable of supporting the load that normal use may cause to be put thereon and shall be kept in sound condition and good repair

Unit 10 (Item 6 of 10)

Wall near entrance

Finding: Interior wall/ceiling with cracked or loose plaster. Hole in wall near entrance.

Remedy: Repair any cracked or loose plaster, paint and maintain all interior surfaces smooth and in good repair to code.

Non Complied

Correct By: Jan 21, 2016

Code Section: Floors, interior walls and ceilings

18-72 Interior walls and ceilings shall be maintained in sound condition and good repair. Cracked or loose plaster and other deteriorated or damaged surface conditions shall be eliminated.

Unit/Area

Unit 12 (Item 7 of 10)

Bathroom

Finding: Plumbing fixture incorrectly installed or maintained. Loose toilet

Remedy: Repair or replace, and maintain plumbing fixture to code

Non Complied

Correct By: Jan 21, 2016

Code Section: General working conditions

18-104 Generally every supplied appliance, plumbing fixture, heating device or system, or utility which is required under this article, and every chimney and smoke pipe shall be so constructed and installed so that it will function safely and effectively and shall be kept in sound working condition.

Unit 3 (Item 8 of 10)

Kitchen Window

Finding: Exterior windowpane cracked in kitchen window

Remedy: Replace windowpane. Maintain all windows weatherproof, in sound condition and good repair to code.

Non Complied

Correct By: Jan 21, 2016

Code Section: Exterior windows and doors

18-73 Every exterior window shall be maintained to prevent wind and water from entering the dwelling or structure. Every window shall be weather-tight. Every windowpane shall be fully and properly glazed.

Unit 4 (Item 9 of 10)

Below heater

Finding: Interior wall with cracked or loose plaster

Remedy: Repair any cracked or loose plaster, paint and maintain all interior surfaces smooth and in good repair to code

Non Complied

Correct By: Jan 21, 2016

Code Section: Floors, interior walls and ceilings

18-72 Interior walls and ceilings shall be maintained in sound condition and good repair. Cracked or loose plaster and other deteriorated or damaged surface conditions shall be eliminated.

Relevant City Ordinances for stairways

18-74 Stairways and porches.

Every inside and outside stair, porch, railing and any appurtenance thereto shall be safe to use and capable of supporting the load that normal use may cause to be put thereon and shall be kept in sound condition and good repair. Specifically, all stairs and other exit facilities of every structure shall be maintained in sound condition and good repair by replacing treads and risers that are worn, broken, warped or loose.

(Ord. of 8-4-86)

18-95 Means of egress.

Each first and second floor dwelling unit shall have one safe, continuous and unobstructed means of egress from the interior of the unit to the exterior at a street or to a public open space or area at grade. Dwelling units on the third floor and above shall have at least two (2) safe, continuous and unobstructed means of egress from the interior of the unit to the exterior at a street or to a public open area at grade unless the building is protected by a fire prevention, protection and alarm system permitted and approved by the Burlington fire marshal, in which case the unit shall have the same means of egress required of first and second floor dwelling units. At a minimum, standards for the maintenance of a required means of egress shall be governed by the following:

- (a) All doors in the required means of egress shall be readily openable from the inner side without the use of keys. Exits from dwelling units shall not lead through other such units or through toilet rooms or bathrooms.
- (b) Ladders or any other exit method which does not comply with the requirements of the building code as adopted by the city in Section 8-2 are not an acceptable means of egress and shall be removed or augmented by an acceptable means of egress.
- (c) All required fire escapes shall be structurally sound and maintained safe and usable and free of snow and ice.
- (d) All required exit signs shall be maintained illuminated and visible.

(Ord. of 8-4-86; Ord. of 11-8-93; Ord. of 12-1-14(1))

City of Burlington

Hardwired Smoke and Carbon Monoxide Detector Installation Guidelines



This booklet should be used as a guideline only. Smoke and Carbon Monoxide detection system design, installation and placement are subject to the approval of City of Burlington Code Officials

The United States Fire Administration states that properly maintained and operating interconnected smoke alarms and CO detectors are two of the three legs of the fire protection triad. Used in combination with a fire sprinkler system, these devices provide best in life safety/fire protection systems currently available

SMOKE DETECTOR LIMITATIONS

According to the Federal Emergency Management Agency, smoke detectors may not go off or provide adequate warning time in as many as 35% of all fires.

Smoke detectors will not work without power.

Battery operated smoke detectors will not work if there is no power because:

- ◆ the batteries are dead
- ◆ the wrong batteries are installed
- ◆ the batteries are incorrectly installed
- ◆ the batteries have been removed to silence a 'nuisance' alarm

Hardwired (AC) detectors will not work if there is no power because:

- ◆ there is Power company failure (either at a generator or along the power lines)
- ◆ there is an open fuse or circuit breaker in the home
- ◆ a fire in the home has burned wiring before the alarm has sounded

AC Powered Smoke Detectors with Battery Backup are the Safest Alternative

Smoke detectors may not be heard.

All UL listed smoke detectors meet current standards for loudness. However, they may not be heard by occupants in a home when:

- ◆ the detector is located outside the closed bedroom door of a sound sleeper
- ◆ the detector is located outside the closed bedroom door of a sleeper who recently used drugs or has been drinking alcoholic beverages
- ◆ the detectors is located on a different level than bedrooms
- ◆ the occupant is hard of hearing
- ◆ the sound is blocked by distance, closed doors, or ambient noise such as:
 - traffic
 - televisions and stereos
 - air conditioners
 - other appliances and equipment

Smoke Detectors Shall Be Placed Within Every Room Used For Sleeping, Outside Of Sleeping Area, And On Every Level Of Each Dwelling Unit, Including Basements

Smoke detectors will not work when the smoke does not reach the detector.

- ◆ Fires may not trigger an alarm when:
 - A fire starts in a chimney, roof or within a wall
 - The fire starts on the other side of a closed door
 - A detector on the 2nd floor may not sense a fire in the first floor or Basement.

*Smoke Detectors Shall Be Interconnected:
A Fire in the Basement Should Alarm in the Bedroom*

*Only photoelectric type smoke detectors are allowed
for newly installed and replacement smoke detectors.*

Burlington Smoke and Carbon Monoxide Detector Ordinances

City of Burlington Code of Ordinances

Chapter 18: Housing

Sec. 18-99. Smoke detectors.

- (a) Each and every dwelling, rooming house, dwelling unit or rooming unit let to another for occupancy shall meet the following requirements for smoke detectors/alarms.
- (1) Smoke detectors/alarms shall be installed in the following, areas:
 - a. In every sleeping room or area;
 - b. Outside every sleeping room or area in the immediate vicinity of the sleeping room or area; and
 - c. On all levels of the dwelling, dwelling unit, rooming house, or rooming unit, including basements but excluding crawl spaces and unfinished attics.
 - d. Notwithstanding the above installation locations, detectors/alarms shall not be located within kitchens or garages or in other spaces where temperatures can fall below forty (40) degrees F (four (4) degrees C) or exceed one hundred (100) degrees F (thirty-eight (38) degrees C). Detectors/alarms shall not, unless specifically listed for the application, be located closer than three (3) feet (0.9 m) horizontally from:
 1. The door to a kitchen.
 2. The door to a bathroom containing a tub or shower.
 3. The supply registers of a forced air heating or cooling system, and outside of the airflow from those registers.
 - (2) Smoke detectors/alarms shall receive their operating power from the building electrical system but shall also receive power from a battery when the building electrical system power is interrupted.
 - (3) Smoke detectors/alarms within each dwelling unit or rooming unit shall be interconnected so that the sensing of smoke by one detector sounds the alarms of all detectors within that dwelling unit or rooming unit.
 - (4) Smoke detectors/alarms shall be approved or listed by a nationally recognize testing or listing agency for the purposes for which they are intended.
 - (5) Smoke detectors/alarms shall be properly installed and shall be maintained in good working condition.
- (b) All other dwellings, rooming houses, dwelling units or rooming units not covered by (a) shall have a smoke detector/alarm installed adjacent to bedroom areas. Such smoke detectors/alarms shall be approved or listed by a nationally recognized testing or listing agency for the purposes for which they are intended.

Sec. 18-101. Carbon monoxide (CO) detectors.

- (a) For rental units, as defined by this chapter, carbon monoxide detectors which are UL 2034 listed or approved by a nationally recognized independent testing laboratory shall be installed in the vicinity of the sleeping areas and on every floor of the dwelling in accordance with the manufacturer's instructions and state law.
- (b) Anyone installing smoke detectors pursuant to section 18-99 after the effective date of this section [10-19-2005] shall install either a combination smoke detector/carbon monoxide detector device or a combination system providing smoke and carbon monoxide detection and alarm in the vicinity of the sleeping areas and on every floor of the dwelling in accordance with the manufacturer's instructions and state law.
- (c) Owners shall keep the following records relating to the installation and maintenance of CO detectors or systems:
 - (1) the model and make and date of installation of each detector or system;
 - (2) the power source of the detector or detection system;
 - (3) the location where each detector was installed;

(4) maintenance records.

These records must be made available to any city building trades, fire, housing, or health inspector upon request.

(d) Responsibilities. Owners shall provide and maintain the detectors required by subsection (a).

(e) Habitability. A dwelling shall be deemed uninhabitable under the provisions of this chapter if an order to comply with subsections (a) and (b) is issued and not complied with in the time specified, unless a written extension has been granted.

(f) The seller of a residential dwelling transferred by sale or exchange shall certify to the buyer that the dwelling is provided with the carbon monoxide detectors required in subsection (a). This certification shall be signed and dated by the seller and filed in the land records at the time of recording the transfer. If the buyer notifies the seller within ten days by certified mail from the date of conveyance that the dwelling lacks a carbon monoxide detector or that the detector is not operable, the seller shall comply with this section within ten days of notification.

City of Burlington Code of Ordinances

Chapter 13: Fire Protection and Prevention

Sec. 13-4. Carbon monoxide (CO) detectors.

(a) Each and every dwelling, rooming house, dwelling unit or rooming unit **let to another** for occupancy shall meet the following requirements for Carbon Monoxide (CO) detectors/alarms:

Carbon monoxide detectors which are UL 2034 listed or approved by a nationally recognized independent testing laboratory shall be installed in all existing buildings in which people sleep, including where people rent accommodations whether for overnight or for a longer term, condominiums, multiple unit dwelling, and other occupancies in which there are rooms or spaces in which sleeping is permitted. Such installation shall be in the vicinity of the sleeping areas and on every floor of the dwelling, installed in accordance with the manufacturer's instructions and state law. All newly installed carbon monoxide alarms (detectors) in one and two family, dwellings, multiple unit dwellings, lodging or rooming houses, hotels and dormitories, or other buildings in which people sleep, shall be directly wired to a non-dedicated electrical branch circuit for the building and by battery. Carbon monoxide detectors currently installed in existing one-two family dwellings shall be permitted to be powered by any approved source until the end of their service life **(5 years from date of installation for CO detectors).**

(b) In all existing buildings in which people sleep, including where people rent accommodations whether for overnight or for a longer term, condominiums, or multiple unit dwelling, anyone installing smoke detectors pursuant to section 18-99 of this Code of Ordinances after the effective date of this section shall install either a combination smoke detector/carbon monoxide detector device or a combination system providing smoke and carbon monoxide detection and alarm. Such installation shall be in the vicinity of the sleeping areas and on every floor of the dwelling, **installed in accordance with the manufacturer's instructions and state law.**

(c) The seller of a residential dwelling transferred by sale or exchange shall certify to the buyer that the dwelling is provided with the carbon monoxide detectors required in subsection (a). This certification shall be signed and dated by the seller and filed in the land records at the time of recording the transfer. If the buyer notifies the seller within ten days by certified mail from the date of conveyance that the dwelling lacks a carbon monoxide detector or that the detector is not operable, the seller shall comply with this section within ten days of notification.

(d) Where interconnected smoke detectors exist, the CO detection shall be interconnected as well, such that a CO alarm will meet current audibility requirements as adopted in NFPA 72 for smoke alarms.

(e) If a smoke detector is disconnected or disabled, that fact shall create a rebuttable presumption that the adult occupants of the dwelling unit were responsible for the act of disconnecting or disabling the smoke alarm.

(f) No requirement of this section shall preclude the application of other more restrictive smoke alarm requirements which may pertain to the property, including, but not limited to, requested time of sales inspections pursuant to state law.

Sec. 13-5. - Smoke detectors.

(a) Each and every dwelling, lodging or rooming house, dwelling unit or rooming unit for occupancy, other than for a single-family owner occupied dwelling, shall meet the following requirements for smoke detectors/alarms.

(1) Smoke detectors/alarms shall be installed in the following, areas:

- a. In every sleeping room or area;
- b. Outside every sleeping room or area in the immediate vicinity of the sleeping room or area; and
- c. On all levels of the dwelling, dwelling unit, rooming house, or rooming unit, including basements but excluding crawl spaces and unfinished attics.
- d. Notwithstanding the above installation locations, detectors/alarms shall not be located within kitchens or garages or in other spaces where temperatures can fall below forty (40) degrees F (four (4) degrees C) or exceed one hundred (100) degrees F (thirty-eight (38) degrees C). Detectors/alarms shall not, unless specifically listed for the application, be located closer than three (3) feet (0.9 m) horizontally from:

(i) The door to a kitchen.

(ii) The door to a bathroom containing a tub or shower.

(iii) The supply registers of a forced air heating or cooling system, and outside of the airflow from those registers.

(2) Smoke detectors/alarms shall receive their operating power from the building electrical system but shall also receive power from a battery when the building electrical system power is interrupted.

(3) Smoke detectors/alarms within each dwelling unit or rooming unit shall be interconnected so that the sensing of smoke by one (1) detector sounds the alarms of all detectors within that dwelling unit or rooming unit.

(4) Smoke detectors/alarms shall be approved or listed by a nationally recognize testing or listing agency for the purposes for which they are intended and conform with the requirements of the Vermont Fire and Building Safety Code.

(5) Smoke detectors/alarms shall be properly installed and shall be maintained in good working condition.

(6) All newly installed smoke alarms shall be the photoelectric-only type

(b) Single-family owner occupied dwellings shall comply with the smoke alarm provisions of the Vermont Fire and Building Safety Code currently in effect.

(c) If a smoke detector is disconnected or disabled, that fact shall create a rebuttable presumption

that the adult occupants of the dwelling unit were responsible for the act of disconnecting or disabling the smoke detector.

(d) No requirement of this section shall preclude the application of other more restrictive smoke detector requirements which may pertain to the property, including but not limited to, time of sale requirements pursuant to state law.

(Ord. of 10-26-09; Ord. of 12-19-11)

City of Burlington Code of Ordinances

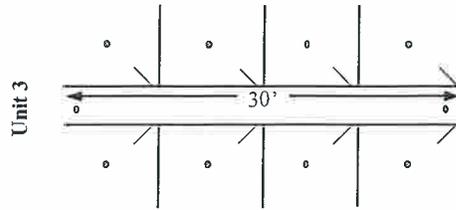
Chapter 8: Building

Sec. 8-2. Building codes adopted

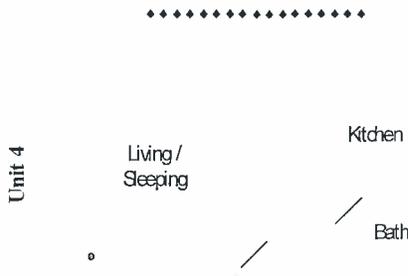
(d) *Carbon Monoxide (CO) Detectors.* Residential dwelling and other occupancies in which there are rooms or spaces in which sleeping is permitted may not be constructed or substantially altered or repaired without the installation in the vicinity of the sleeping areas and on every floor of the dwelling of interconnected, hardwired, battery backup, UL 2034 listed or approved carbon monoxide detectors. In residential occupancies which are compartmentalized and constructed and maintained as if they are separate buildings pursuant to the Vermont Fire and Building Safety Code, carbon monoxide detectors need only be interconnected within the distinct "buildings" as those recognized by the authority having jurisdiction under the Vermont Code. Such detectors shall be installed in accordance with the manufacturer's instructions and state law. For purposes of this provision, "substantially altered or repaired" means that the cost of construction, alteration, or repair is 40% or more of the assessed value of the property as listed by the City Appraisers Office.

SMOKE DETECTOR PLACEMENT

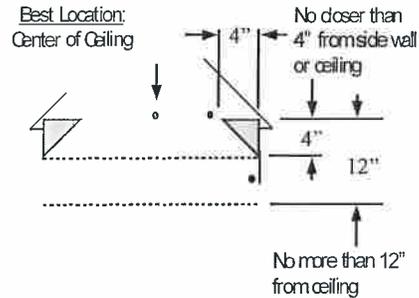
- ◆ A smoke detector shall be placed at each end of a hallway serving bedrooms, if the hallway is in excess of 30' in length, as shown in Unit 3.



- ◆ In an efficiency type apartment, smoke detectors should be placed in the sleeping area, as far away from the kitchen area as possible as shown in Unit 4. *Do not ceiling mount a detector in a room near a kitchen when there is no wall above the passageway that separates the kitchen from that room.* In this instance, mount the detector on a wall furthest from the kitchen (preventing nuisance alarms).

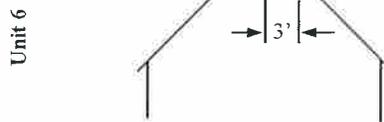


- ◆ Smoke, heat and combustion products rise to the ceiling and spread horizontally. Mounting smoke alarms in the center of the ceiling will provide the earliest warning, and the best possible protection. Ceiling mounted installation is preferred in residential construction



- ◆ If mounting near the center of the ceiling is not practical, a smoke detector may be located on the ceiling no closer than 4" (10cm) from the to the ceiling / wall junction.
- ◆ (See unit 5.)

- ◆ Smoke detectors may be wall mounted, if they are located at least 4", but not more than 12" from the ceiling, and no closer than 4" from a sidewall. (See unit 5)

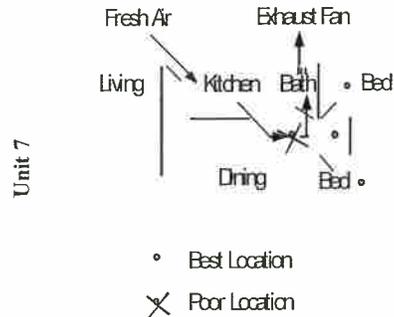


- ◆ If the room has a sloped ceiling, mount detector 3' (measured horizontally) from the highest point of the ceiling. (See unit 6)

WHERE NOT TO PLACE SMOKE DETECTORS

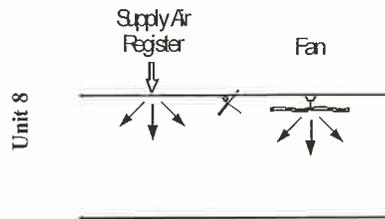
- ◆ Air Streams Near Kitchens Fresh air often enters apartments around the front door (even if the door opens into a common hallway). When the bathroom exhaust fan operates, the fan exhausts air which may be replaced by fresh air entering through the front door. If the air flow goes through a kitchen, products of combustion (from cooking activities) may enter the air under normal, fire free conditions, causing nuisance alarms.

Place smoke detector so that it is out of the air flow of 'normal' kitchen combustion products. A more appropriate location for the detector in unit 7 is between the two bedroom doors.



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- ◆ Near Bathrooms Excessive steam from a bathroom shower may cause condensation on the detector components, causing a nuisance alarm. See unit 7. (If possible, locate detectors at least 10' away from bathrooms.)

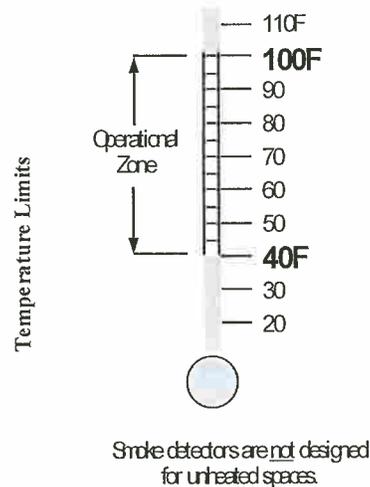


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- ◆ Drafty Areas Including areas affected by heating and cooling supply / return registers, ceiling fans, air conditioners, etc. Install detectors only where they will not be bypassed by mechanical ventilation in the room. See Unit 8.

- ◆ Garages Running automobile engines produce products of combustion which may cause nuisance alarms.

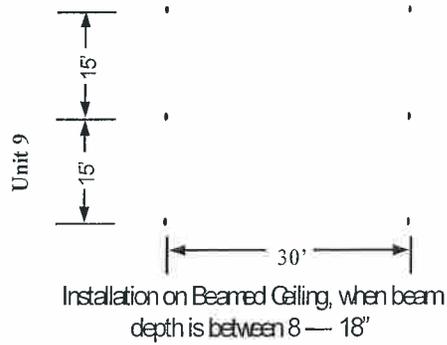
- ◆ Unheated Buildings or Rooms Most smoke detectors will not function properly at temperatures above 100F or below 40F.



SPECIAL SPACING CONSIDERATIONS

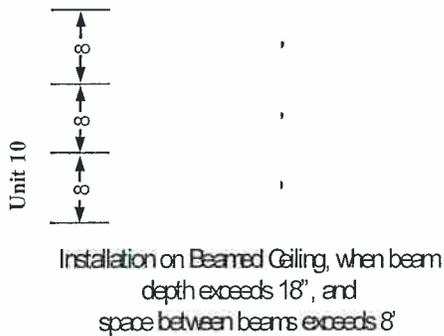
◆ Beamed Ceilings

- If ceiling beams are less than 8" in depth, detectors should be mounted in the center of the room, on the bottom of the beam (not in the channels in between)
- If beams are between 8—18" deep, detectors should be mounted on the bottom of beams, and additional detectors installed. (See unit 9)
- Movement of smoke may be slowed if beam depths exceed 8". If beam depth exceed 18" and are more than 8' on center, each bay will require a separate detector. (See unit 10)



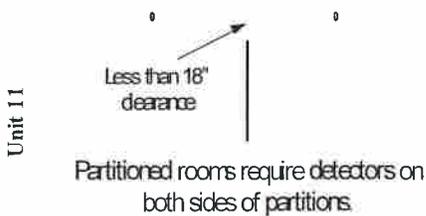
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- ◆ Partitions Any room with partitions mounted on the floor and leaving less than 18" of vertical space between the partition top and the ceiling should be considered a sidewall. Each partitioned area should have a detector. (See unit 11)



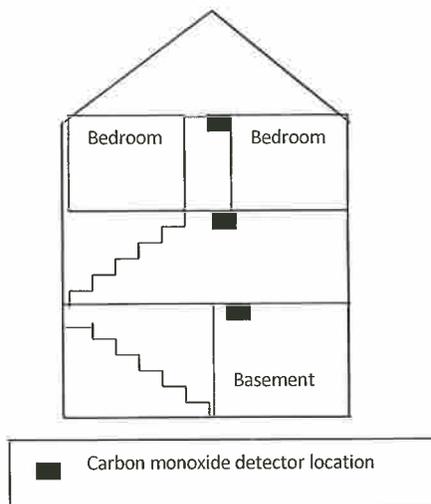
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- ◆ Large Rooms / Long Hallways Under ideal conditions, with normal ceiling heights and no physical obstructions between the property protected and a detector, detectors can be installed on 30' centers. (See unit 12.)



Carbon Monoxide Detectors

- All newly installed carbon monoxide detectors in all new homes built since 2005, all single family rentals, all two family dwellings, multiple unit dwellings, lodging or rooming houses, hotels and dormitories, or other buildings in which people sleep, shall be directly wired to a non-dedicated electrical branch circuit for the building and by battery
- All Carbon Monoxide detectors in a single apartment or dwelling unit must be interconnected.
- A Carbon Monoxide detector must be placed outside each sleeping area and on every level of the dwelling unit.
- An additional carbon monoxide detector shall be installed in each sleeping area that contains a fuel- burning appliance.
- Carbon monoxide detectors must be installed in accordance with the manufacturers' instructions.
- Manufacturers' recommended spacing must be followed when locating Carbon Monoxide detectors in the vicinity of gas fire heating appliances.



Source: Manufacturers' recommendations based on NFPA 101 and NFPA 720

Contacts

Fire Marshall's Office

802-864-5577

Director of Code Enforcement

802-865-7510

Electrical Inspector's Office

802-865-7561

Life Safety & Building Code Official's Office

802-865-7559



Residential Single Station Smoke Detector Summary Table

Building Type	Power supply	Interconnected	On each level	Inside bedrooms
Owner Occupied Single-Family (newly rewired or built since 1994)*	Hardwired with battery back-up	Optional	Yes	Optional
Existing Owner-occupied Single-Family (built prior to 1994) *	Hardwired <i>Or</i> Battery power	Optional	Yes	Optional
All rental dwelling units (new and existing)	Hardwired with battery back-up	Yes	Yes	Yes
Owner occupied Condos	Hardwired with battery back-up	Yes	Yes	Yes

★ **Install all detectors per manufacturers' installation instructions & replace per manufacturers' expiration dates.** ★

* Single family homes that are converted to rentals will have to upgrade smoke detectors to include hard wiring, interconnection and detectors in all sleeping areas.

- ▶ **PHOTOELECTRIC ONLY TYPE DETECTORS ALLOWED FOR NEW AND REPLACED DETECTORS**
- ▶ **PHOTOELECTRIC ONLY TYPE DETECTORS REQUIRED AT TIME OF SALE OR TRANSFER FOR EXISTING SINGLE FAMILY HOMES**
- ▶ **SEE CITY OF BURLINGTON GUIDELINES FOR INSTALLATION DETAILS**

Source: Burlington Code of Ordinances, Sections 18-99 & 13-5. VSA Title 9, Chapter 77



Residential Carbon Monoxide Detector Summary Table

All detectors must be listed and meet the standards of UL 2034

Building Type	Power supply	Interconnected	On each level	Inside bedrooms
Owner Occupied Single-Family (newly built or newly rewired since 2005)	Hardwired with battery back-up	Yes	Yes	Yes – if sleeping room contains a fuel burning heating appliance
Existing Owner-occupied Single-Family (built prior to 2005)	Hardwired <i>Or</i> Battery power	Optional	Yes	Yes – if sleeping room contains a fuel burning heating appliance
All rental dwelling units (new and existing)	Hardwired with battery back-up	Yes	Yes	Yes – if sleeping room contains a fuel burning heating appliance
Owner occupied Condos	Hardwired with battery back-up	Yes	Yes	Yes – if sleeping room contains a fuel burning heating appliance
<div style="display: flex; justify-content: space-between; align-items: center;"> ★ <div style="text-align: center;"> <p><i>Install all detectors per manufacturers' installation instructions & replace per manufacturers' expiration dates.</i></p> <p><i>* Single Family homes that are converted to rentals will have to upgrade CO detectors to include hard wiring and interconnection</i></p> </div> ★ </div>				

▼ ***CARBON MONOXIDE DETECTORS ARE REQUIRED AT TIME OF SALE OR TRANSFER FOR EXISTING SINGLE FAMILY HOMES.***

▼ ***SEE CITY OF BURLINGTON GUIDELINES FOR INSTALLATION DETAILS.***

Source: Burlington Code of Ordinances, Sections 8-2, 18-101 & 13-4.



Vermont Department of Public Safety DIVISION OF FIRE SAFETY

OFFICE OF THE STATE FIRE MARSHAL, THE STATE FIRE ACADEMY AND THE STATE HAZ-MAT TEAM



Updated November 2012

www.firesafety.vermont.gov

CODE INFORMATION SHEET

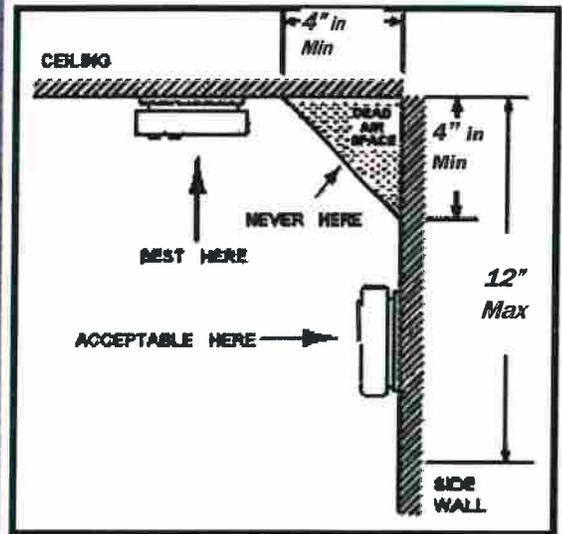
2012

Residential Single Station Smoke Alarms

The installation of smoke alarms (detectors) must be in accordance with the manufacturer's instructions and NFPA 72, the National Fire Alarm Code. Section 72:29.8.3.4 specific location requirements improve reliability and avoid false alarms. Smoke alarms (detectors) must

- not be located where the humidity and temperature are outside of the limits specified by the manufacturer,
- not be located where temperatures fall below 40 degrees or exceed 100 degrees,
- be mounted on an inside wall or ceiling where outside walls or ceilings are poorly insulated,
- be photoelectric, located 6- 10' from a cooking appliance
- not be within 36 inches from a door to a kitchen or bathroom containing a shower or tub,
- not be installed within 36 inches from a supply register of a forced hot-air heating or cooling system,
- not be installed within 36 inches from the tip of a blade of a fan suspended from a ceiling,
- be located in a stairway so that an intervening door or obstruction does not prevent rising smoke from reaching the alarm (detector),
- be located on the basement ceiling near the entry to the stairs.
- For try-shaped ceilings, smoke alarms shall be installed on the highest portion of the ceiling or on the sloped portion of the ceiling within 12 " vertically down from the highest point.
- Smoke alarms installed in rooms with joists or beams shall comply with the requirements of NFPA 72:17.7.3.2.4
- Heat alarms and detectors installed in rooms with joists or beams shall comply with the requirements of NFPA 72:17.6.3

Example of Proper Mounting for Smoke Alarms
NFPA Figure 72: A.5.6.3.1



Photoelectric Smoke Alarms



Act 180 of the 2008 Legislative Session established requirements for photoelectric smoke alarms for single-family dwellings. The law specifies that beginning Jan 1, 2009 new owner occupied single-family dwellings, and dwellings that are sold or transferred, must have a photoelectric style alarm installed in the immediate vicinity of any bedrooms and on each level of the dwelling. New construction must have alarms that are electrically wired in with battery back up.

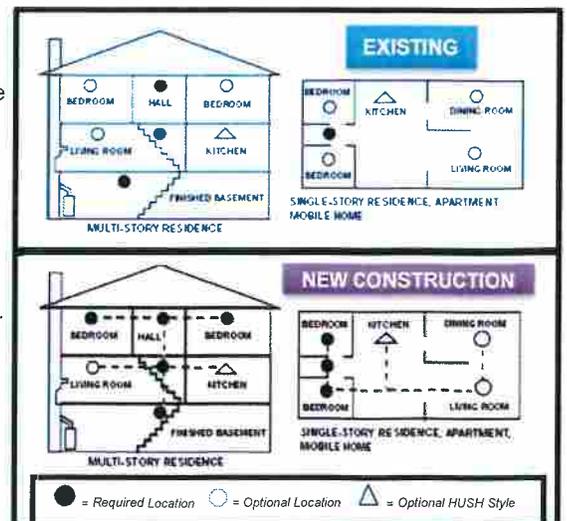
Why should my home have smoke alarms?

A smoke alarm are the single most important means of preventing house and apartment fire fatalities by providing an early warning signal -- so you and your family can escape.

Where do I put them?

Install smoke alarms on every level of your home, including the basement. Many fatal fires begin late at night or in the early morning. In new buildings install smoke alarms both inside and outside of the sleeping rooms. This is because most fire fatalities occur between 2 a.m. and 6 a.m. when most people are sleeping. Contrary to popular belief, the smell of smoke may not wake a sleeping person. Instead, the poisonous gases and smoke produced by a fire can dull the senses and put one into a deeper sleep. The only thing standing between the deadly fumes of a fire and a safe escape is the piercing sound of a smoke alarm.

Additional information on back



How do I take care of my smoke alarms?

Smoke alarms are pretty easy to maintain. Unfortunately, improper maintenance is a big reason smoke alarms fail. According to a study by the Consumer Product Safety Commission, 90 percent of U.S. households have smoke alarms. However, the smoke alarms in 20 percent of these households - about 16 million - weren't working. Vacuuming the outer surface of the alarm occasionally will help prevent false alarms.

Can I install a combination smoke alarm?

The law and the code allow the use of photoelectric and carbon monoxide combination alarms but it does not allow ionization / photoelectric combination alarms to be used.

How long will my smoke alarm last?

About eight-to-ten years, after which it should be replaced. Like most electrical devices, smoke alarms wear out. You may want to write the purchase date with a marker on the inside of your unit. That way, you'll know when to replace it. Always follow the manufacturer's instructions for replacement.

Updating Smoke Alarms

Smoke alarms don't last forever. Smoke alarms need to be replaced every 10 years.

If your smoke alarms are 10 years old or more it's time to replace them with new photoelectric ones.

There's a label on the alarm with the date of manufacture. If it doesn't have a label, it's already more than ten years old. Smoke alarms need to be properly installed, maintained and replaced when needed.

Many hardware, home supply or general merchandise stores carry smoke alarms. Make sure the alarm you buy is a photoelectric style and is UL-listed. If you are unsure where to buy one in your community, call your local fire department (on a non-emergency telephone number) and they will provide you with some suggestions.

No home should be without smoke alarms, and ionization alarms should continue to be used until a home can be equipped with new photoelectric alarms. And remember installation of an early warning single station smoke alarm system combined with a well-rehearsed plan for escape may save the lives of you and your family.

Requirements of the Vermont Fire and Building Safety Code

NFPA 101

[9.6.2.10.2.1] **Power for Smoke Alarms:** All newly installed smoke alarms in one & two family dwellings, multiple unit dwellings, lodging or rooming houses, hotels and dormitories shall be directly wired to a non-dedicated electrical branch circuit for the building and by battery.

[9.6.2.12] **Photoelectric Smoke Alarms:** All newly installed smoke alarms in dwelling units, lodging or rooming houses, hotels and dormitories, shall be the photoelectric-only-type.

[24.3.4] **Detection, Alarm, and Communications Systems.** Smoke alarms or a smoke detection system shall be provided in accordance with either 24.3.4.1 or 24.3.4.2, as modified by 24.3.4.4

[24.3.4.1.1] Smoke alarms shall be installed in accordance with 9.6.2.10 in the following locations:

- (1) **All sleeping rooms** in other than existing one- and two-family dwellings, in new or renovated buildings.
- (2) **Outside of each separate sleeping area**, in the immediate vicinity of the sleeping rooms.
- (3) **On each level** of the dwelling unit, including **basements**.

[24.3.4.1.2] Dwelling units shall be protected by an approved smoke detection system in accordance with Section 9.6 and equipped with an approved means of occupant notification.

[24.3.4.1.3] In existing one- and two-family dwellings, approved smoke alarms powered by batteries shall be permitted.

[9.6.2.10.2.1] When alarms are replaced they shall be wired in to receive AC power from the buildings electrical system.



CARBON MONOXIDE ALARMS

CODE INFORMATION SHEET

2012

Unintentional carbon monoxide (CO) poisoning sends an estimated 10,000 people to the hospital emergency rooms for treatment each year nationwide, and claims more than 200 lives. Heating appliances that are not working properly are the major cause of unintentional carbon monoxide poisoning in Vermont. Other common sources include emergency generators or space heaters and motor vehicles left running in attached garages. Over the last five years there were over 800 CO incidents reported by fire departments in Vermont including 6 unintentional deaths from CO poisoning.

Carbon Monoxide Alarms (Detectors)

CO alarms are very reliable and provide excellent protection from CO. The installation of CO alarm gives a warning to people in a building of unhealthy or dangerous levels of CO before the symptoms of CO poisoning occur.

A CO alarm should be centrally located outside of each sleeping area in the immediate vicinity of the bedrooms.

Each CO alarm should be located on the wall, ceiling, or other location as specified in the manufacturer's installation instructions that accompany the unit.

A CO detector is not designed to detect smoke or heat.

A CO detector is not a substitute for a properly installed smoke detector. Combination smoke detector and CO detectors are available and should also be installed in accordance with the manufacturers instructions.

It is very important to be aware of the early signs of CO poisoning. Exposure to CO can mimic flu systems - headaches, dizziness, disorientation, nausea and fatigue. Higher levels of exposure will result in disorientation and drowsiness, leading to unconsciousness and death. Often the symptoms will be less when the person exposed to carbon monoxide leaves the building, only to have the symptoms reoccur when the person re-enters the building.



RULES REGARDING CO DETECTION AND PREVENTION

Act 19 of the 2005 Legislative Session established requirements for CO detection and prevention for both single-family dwellings and public buildings.

The law specifies that beginning July 1, 2005 new owner occupied single-family dwellings, and dwellings that are sold or transferred, must have a CO alarm installed in the immediate vicinity of any bedrooms. New construction must have CO alarms that are electrically wired in with battery back up.

Any residential buildings in which people sleep, including hotels, motels, and tourist homes, apartments and condos whether the units are owned or leased or rented, require CO alarms.

The National Fire Protection Association standard (NFPA 720) provides guidance on required locations for CO alarms CO detectors must be centrally located outside of each separate sleeping area in the immediate vicinity of the bedrooms. If a hall is more than 40 feet (12 meters) long,

Additional Information on back

Combination Smoke and Carbon Monoxide Detectors -

The law and the codes allow the use of photoelectric and carbon monoxide combination alarms.

Detectors that do not work cannot provide early warning and save you from Carbon Monoxide Poisoning. Keep alarms clean, and test them weekly. Replace detectors immediately if they are not working properly.

The dangers of carbon monoxide exposure depend on a number of variables, such as the occupant's health, activity level, time of exposure, and initial carboxyhemoglobin (COHb) level. Experience has shown that hazardous concentrations of carbon monoxide can accumulate in a residence, generally from improperly operating heating appliances, insufficient make-up air into the residence or space, or blocked chimneys or vents. However, there are many other potential sources of carbon monoxide within a home, including the following:

- (1) Malfunctioning fossil fuel appliances
- (2) Wood stoves
- (3) Fireplaces
- (4) Idling automobiles in attached garages
- (5) Portable equipment such as gasoline-powered lawn and garden equipment
- (6) Barbecues

Carbon monoxide is odorless, tasteless, and colorless; therefore, its presence is undetectable by smell, taste, or sight. Carbon monoxide alarms meeting the requirements of ANSI/UL 2034, and installed in accordance with the standards provide a significant level of protection against fatal carbon monoxide exposure.

Although carbon monoxide warning equipment might respond to gases produced by unwanted fires, CO alarms are not substitutes for smoke alarms and vice versa. Know the difference between the sound of smoke alarms and the sound of CO alarms.

Requirements of the Vermont Fire and Building Safety Codes & Vermont Law

NFPA 101

101:9.8- **Carbon Monoxide Detection:** shall be installed in accordance with NFPA 720, Standard for the Installation of Carbon Monoxide Warning (CO) Equipment in Dwelling Units,

101:9.8.1 **-Power for Carbon Monoxide Alarms:** All newly installed carbon monoxide alarms (detectors) in multiple unit dwellings, lodging or rooming houses, hotels and dormitories, or other buildings in which people sleep, shall be directly wired to a non-dedicated electrical branch circuit for the building and by battery. Carbon monoxide detectors in one-two family dwellings that existed on October 22, 2005, shall be permitted to be powered by any approved source (Plug in style).

NFPA 720 covers the selection, application, installation, location, testing and maintenance of carbon monoxide warning equipment in all buildings in which people sleep.

720: 9.4.1.1 A carbon monoxide alarm or detector shall be centrally located outside of each separate sleeping area in the immediate vicinity of the bedrooms.

720: 9.4.1.2 Each alarm or detector shall be located on the wall, ceiling, or other location as specified in the installation instructions that accompany the unit.

Vermont Statutes**Title 9: Commerce and Trade Chapter 77: SMOKE DETECTORS AND CARBON MONOXIDE DETECTORS § 2882. Installation**

(a) A person who constructs a single-family dwelling shall install one or more smoke detectors, and one or more carbon monoxide detectors in the vicinity of any bedrooms in the dwelling in accordance with the manufacturer's instructions. In a dwelling provided with electrical power, detectors shall be powered by the electrical service in the building and by battery.

(b) A single-family dwelling transferred by sale or exchange shall contain one or more smoke detectors and one or more carbon monoxide detectors powered by the electrical service in the building or by battery, or by a combination of both, and installed in accordance with the manufacturer's instructions.

How long will my CO alarm last?

Like most electrical devices, CO alarms wear out. The life span for a CO Alarm is about five (5) years, after which it should be replaced.

You may want to write the purchase date with a marker on the back of your unit. That way, you'll know when to replace it. **Always follow the manufacturer's instructions for replacement.**

199 S. Union – North Side

Photo taken by Code Director Bill Ward



199 S. Union – North Side
with close up of fire escape



199 S. Union Street stairs leading to Unit #11

Photo taken by Code Director Bill Ward





Requirements for HANDRAILS and GUARDRAILS

CODE INFORMATION SHEET

Requirements of the Vermont Fire and Building Safety Codes

HANDRAILS

Handrail Details. [NFPA 101 SEC 7.2.2.4.4]

New handrails on stairs shall be not less than 34 in. and not more than 38 in. above the surface of the tread, measured vertically to the top of the rail from the leading edge of the tread.

Existing required handrails shall be not less than 30 in. and not more than 38 in. above the surface of the tread, measured vertically to the top of the rail from the leading edge of the tread.

The height of required handrails that form part of a guard shall be permitted to exceed 38 in., but shall not exceed 42 in., measured vertically to the top of the rail from the leading edge of the tread.

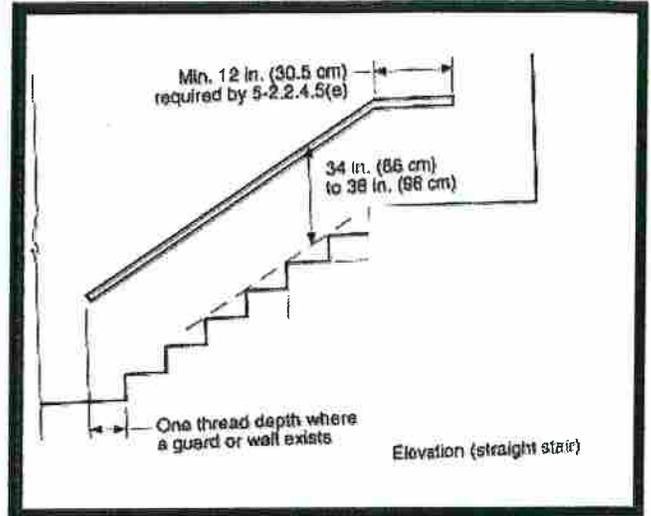
Additional handrails that are lower or higher than the main handrail shall be permitted.

Required guards and handrails shall continue for the full length of each flight of stairs. At turns of new stairs, inside handrails shall be continuous between flights at landings. New handrail ends shall be returned to the wall or floor or shall terminate at newel posts

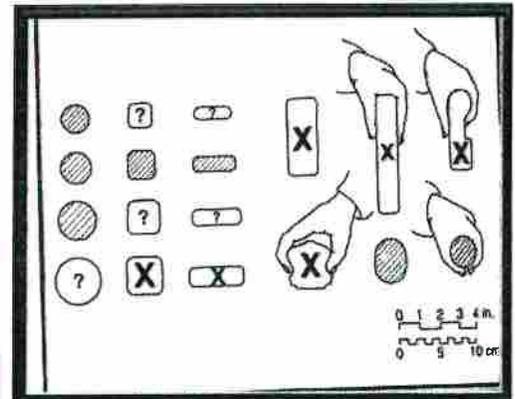
Handrails shall include the following features:

- (1) A circular cross section with an outside diameter of not less than 1 1/4 in. and not more than 2 in.
- (2) A shape that is other than circular with a perimeter dimension of not less than 4 in. but not more than 6 1/4 in., and with the largest cross-sectional dimension not more than 2 1/4 in. provided that graspable edges are rounded

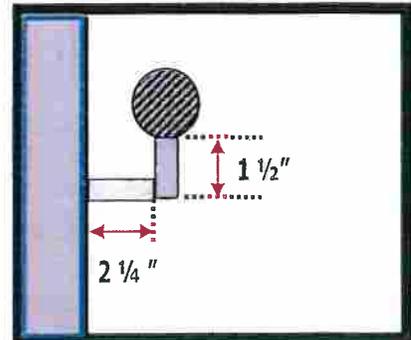
Handrail brackets or balusters attached to the bottom surface of the handrail shall not be considered to be obstructions to graspability.



NFPA 101 Figure A.7.2.2.4.4



NFPA 101 Figure



Guardrail Information on Back

2012

Requirements of the Vermont Fire and Building Safety Codes

Code Requirements for a Guard

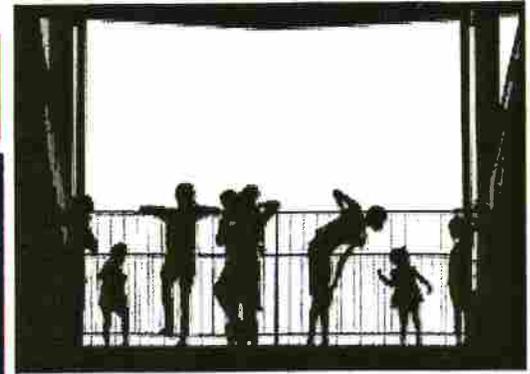
NFPA 101 SEC 7.2.2.4.5.1

Guards shall be provided at the open sides of means of egress that exceed 30 in. above the floor or grade below.

Guards shall be not less than 42 in. high, except as permitted by one of the following:

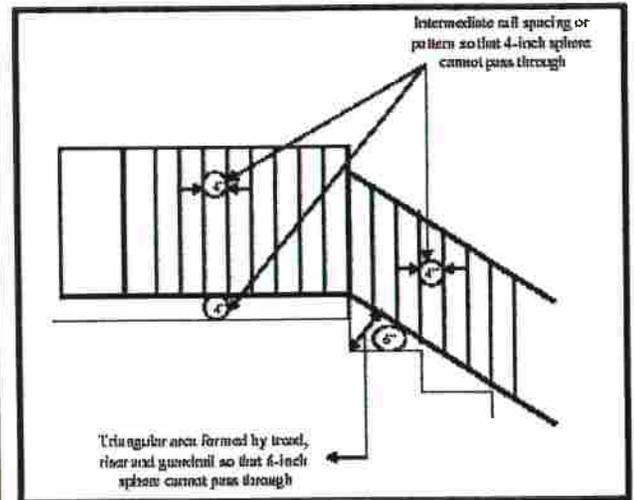
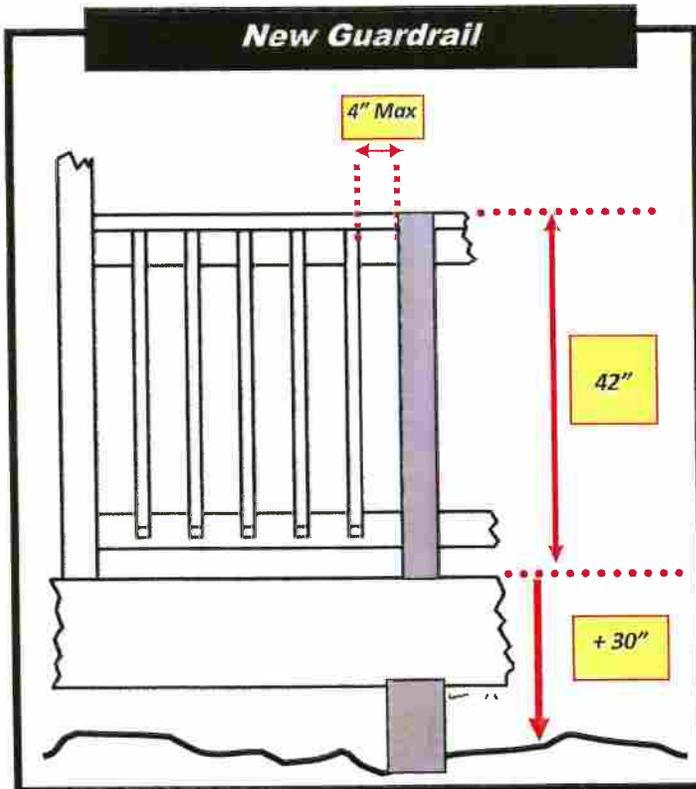
- (1) Existing guards within dwelling units shall be permitted to be not less than 36 in. high.
- (2) The requirement shall not apply in assembly occupancies where otherwise provided in the codes.
- (3) Existing guards on existing stairs shall be permitted to be not less than 30 in. high.

Open guards, other than approved, existing open guards, shall have intermediate rails or an ornamental pattern such that a sphere 4 in. in diameter is not able to pass through any opening up to a height of 34 in., and the following also shall apply:



(1) The triangular openings formed by the riser, tread, and bottom element of a guardrail at the open side of a stair shall be of such size that a sphere 6 in. in diameter is not able to pass through the triangular opening

(2) In detention and correctional occupancies, in industrial occupancies, and in storage occupancies, the clear distance between intermediate rails, measured at right angles to the rails, shall not exceed 21 in



NFPA 101 Figure

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Chns Khamnei
 82 Overdale PK
 Burlington VT 05401

COMPLETE THIS SECTION ON DELIVERY

- A. Signature
 Chris Khamnei Agent
 Addressee
- B. Received by (Printed Name) C. Date of Delivery
 Chris Khamnei 2/12/16
- D. Is delivery address different from item 1? Yes
 If YES, enter delivery address below: No

3. Service Type
 Certified Mail® Priority Mail Express™
 Registered Return Receipt for Merchandise
 Insured Mail Collect on Delivery

4. Restricted Delivery? (Extra Fee) Yes

2. Article Number (Transfer from service label) **7008 3230 0002 9264 2873**

SENDER: COMPLETE THIS SECTION

Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits.

Article Addressed to:

Chns Khamnei
 82 Overdale PK
 Burlington VT 05401

COMPLETE THIS SECTION ON DELIVERY

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 Chris Khamnei Agent
 Addressee
- B. Received by (Printed Name) C. Date of Delivery
 Chris Khamnei 2/12/16
- D. Is delivery address different from item 1? Yes
 If YES, enter delivery address below: No

3. Service Type
 Certified Mail® Priority Mail Express™
 Registered Return Receipt for Merchandise
 Insured Mail Collect on Delivery

4. Restricted Delivery? (Extra Fee) Yes

Article Number (Transfer from service label) **7008 3230 0002 9264 2873**

UNITED STATES POSTAL SERVICE



First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Sender: Please print your name, address, and ZIP+4® in this box •

DEPT. OF PUBLIC WORKS
P.O. BOX 849
BURLINGTON, VT 05402

Norm Baldwin

Norm Baldwin

From: William Ward
Sent: Wednesday, February 17, 2016 7:22 PM
To: Norm Baldwin
Subject: Fwd: 199 South Union Ext Denial in part

Sent from my Verizon Wireless 4G LTE DROID

----- Original Message -----

Subject: RE: 199 South Union Ext Denial in part
From: William Ward <wward@burlingtonvt.gov>
To: Chris Khamnei <chris@rentinv.com>
CC: David <david@rentinv.com>, Patricia Wehman <pwehman@burlingtonvt.gov>, Kim Ianelli <kianelli@burlingtonvt.gov>

Chris,

Please provide us the evidence that you have and we can avoid both the re-inspection for those two items and the emergency hearing with the housing board of review.

We will have the housing Board of Review hear non-emergency items 3-10 at a later date, but I will request an immediate hearing to avoid having uninspected heating units in the middle of winter. If the Smoke/CO detectors have been updated. Please provide us that data. If they are outdated and working in conjunction with uninspected or red tagged heating units, I will have to request an immediate hearing to insure the safety of the tenants in those units.

As an alternative, if you can certify that the units in question are unoccupied and don't represent a hazard to anyone, I will delay my request.

Thank you.

Bill

From: chriskhamnei@gmail.com [mailto:chriskhamnei@gmail.com] **On Behalf Of** Chris Khamnei
Sent: Friday, January 15, 2016 3:59 PM
To: William Ward
Cc: David; Patricia Wehman; Kim Ianelli
Subject: Re: 199 South Union Ext Denial in part

Bill,

We are appealing the order. The grounds for the appeal is that we disagree and have supporting evidence to prove that we meet the minimum housing standard. The relief requested is to vacate the reported deficiencies that constitute a violation.

Sincerely,
Chris

Chris C. Khamnei, Ph.D.
Green Mountain Real Estate
199 South Union Street #0
Burlington, VT 05401
802.222.6080 (Main Line)
802.222.6081 (Fax Line)
802.222.6090 (Maintenance)
802.222.6091 (Landlord)
chris@rentinvt.com
www.RentInVT.com

On Fri, Jan 15, 2016 at 2:49 PM, William Ward <wward@burlingtonvt.gov> wrote:
David,

The ordinance does speak to appeals with the statement:

18-49 When requests to be filed and when hearings to be held.

A request for a hearing provided by Section 18-48 shall be made by writing the enforcement officer within thirty (30) days of the action from which relief is sought. The request shall specify the grounds for the appeal and the relief which is requested.

You are requesting not to have to do any work here or are you saying you are appealing for more time?

Bill

From: David [<mailto:david@rentinvt.com>]
Sent: Friday, January 15, 2016 2:00 PM
To: Patricia Wehman
Cc: Chris Khamnei; Kim Ianelli; William Ward
Subject: Re: 199 South Union Ext Denial in part

Hello,

Mr. Khamnei has asked me to inform you that he wishes to appeal Items 1 through 10 on Inspection Order 301964 to the HRB on the basis that he disagrees with them.

Thank you,

David
Property Manager
Green Mountain Real Estate
199 South Union Street #0
Burlington, VT 05401
(802) 222-6080
www.rentinvt.com

david@rentinv.t.com

On Thu, Jan 14, 2016 at 5:35 PM, Patricia Wehman <pwehman@burlingtonvt.gov> wrote:
Chris & David,

In an effort to accommodate your extension request of the entire order, I am willing to accept invoices and photographs of the remedied deficiencies prior to the re-inspection scheduled for next week. Such documentation may be faxed or emailed to me directly.

Should you have any questions, please call or email.

Regards,
Patti



User Guide for Model KN-COPE-IC

**Combination
Photoelectric
Smoke and Carbon
Monoxide Alarm**

*Presented by
C. Khamnei for
appeal*

- 120 VAC (Interconnectable)
- 2-LED Display
- 9V Battery Backup
- Front Load Battery
- Peak Level Memory
- Hush ®
- Voice Message System



For questions concerning your Smoke and Carbon Monoxide Alarm, please call our Consumer Hotline at 1-800-880-6788.

For your convenience, write down the following information. If you call our consumer hotline, these are the first questions you will be asked:

Alarm Model Number <i>(located on back of the alarm):</i>	
Date of Manufacture <i>(located on back of the alarm):</i>	
Date of Purchase:	
Where Purchased:	

ATTENTION: Please take a few minutes to thoroughly read this user guide which should be saved for future reference and passed on to any subsequent owner.

What To Do When The Alarm Sounds!



WARNING:

Actuation of your CO Alarm indicates the presence of Carbon Monoxide (CO) which can kill you.

When the carbon monoxide alarm sounds:

If alarm signal sounds:

- 1) Operate the test/reset button
- 2) Call your emergency services (Fire Dept. or 911)
- 3) Immediately move to fresh air - outdoors or by an open door/window. Do a head count to check that all persons are accounted for. Do not reenter the premises nor move away from the open door/window until the emergency services responders have arrived, the premises has been aired out, and your alarm remains in its normal condition.
- 4) After following steps 1-3, if your alarm reactivates within a 24 hour period, repeat steps 1-3 and call a qualified appliance technician to investigate for sources of CO from fuel burning equipment and appliances, and inspect for proper operation of this equipment. If problems are identified during this inspection have the equipment serviced immediately. Note any combustion equipment not inspected by the technician and consult the manufacturer's instructions, or contact the manufacturer directly, for more information about CO safety and this equipment. Make sure that motor vehicles are not, and have not been, operating in an attached garage or adjacent to the residence.

What To Do When The Alarm Sounds!

NEVER IGNORE THE SOUND OF THE ALARM!

Determining what type of alarm has sounded is easy with your Kidde Combination Smoke/CO Alarm. The voice message warning system will inform you of the type of situation occurring. Refer to the Features section on page 4 for a detailed description of each alarm pattern.

When the smoke alarm sounds:

Smoke alarms are designed to minimize false alarms. Cigarette smoke will not normally set off the alarm, unless the smoke is blown directly into the alarm. This unit contains nuisance alarm protection, which will reduce the impact of cooking particles. However, large quantities of combustible particles from spills or broiling could still cause the unit to alarm. Careful location of the unit away from the kitchen area will give the maximum nuisance alarm protection. Combustion particles from cooking may set off the alarm if located too close to the cooking area. Large quantities of combustible particles are generated from spills or when broiling. Using the fan on a range hood which vents to the outside (non- recirculating type) will also help remove these combustible products from the kitchen.

If the alarm sounds, check for fires first. If a fire is discovered follow these steps. Become thoroughly familiar with these items, and review with all family members!

- Alert small children in the home. Children sleep very sound and may not be awakened by the sound of the smoke alarms.
- Leave immediately using one of your planned escape routes (see page 25). Every second counts, don't stop to get dressed or pick up valuables.
- Before opening inside doors look for smoke seeping in around the edges, and feel with the back of your hand. If the door is hot use your second exit. If you feel it's safe, open the door very slowly and be prepared to close immediately if smoke and heat rush in.
- If the escape route requires you to go through smoke, crawl low under the smoke where the air is clearer.

What To Do When The Alarm Sounds!

- Go to your predetermined meeting place. When two people have arrived one should leave to call 911 from a neighbor's home, and the other should stay to perform a head count.
- **Do not reenter under any circumstance until fire officials give the go ahead.**
- **There are situations where a smoke alarm may not be effective to protect against fire as noted by the NFPA and UL. For instance:**
 - Smoking in bed.
 - Leaving children unsupervised.
 - Cleaning with flammable liquids, such as gasoline.
 - Fires where the victim is intimate with a flaming initiated fire; for example, when a person's clothes catch fire while cooking.
 - Fires where the smoke is prevented from reaching the detector due to a closed door or other obstruction.
 - Incendiary fires where the fire grows so rapidly that an occupant's egress is blocked even with properly located detectors.

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Introduction

Thank you for purchasing the Kidde Combination Photoelectric Smoke and Carbon Monoxide Alarm model KN-COPE-IC. This alarm is suitable as a Single Station and/or Multiple Station (24 devices) alarm.

Please take a few minutes to thoroughly read this user guide which should be saved for future reference. Teach children how to respond to the alarms, and they should never play with the unit.

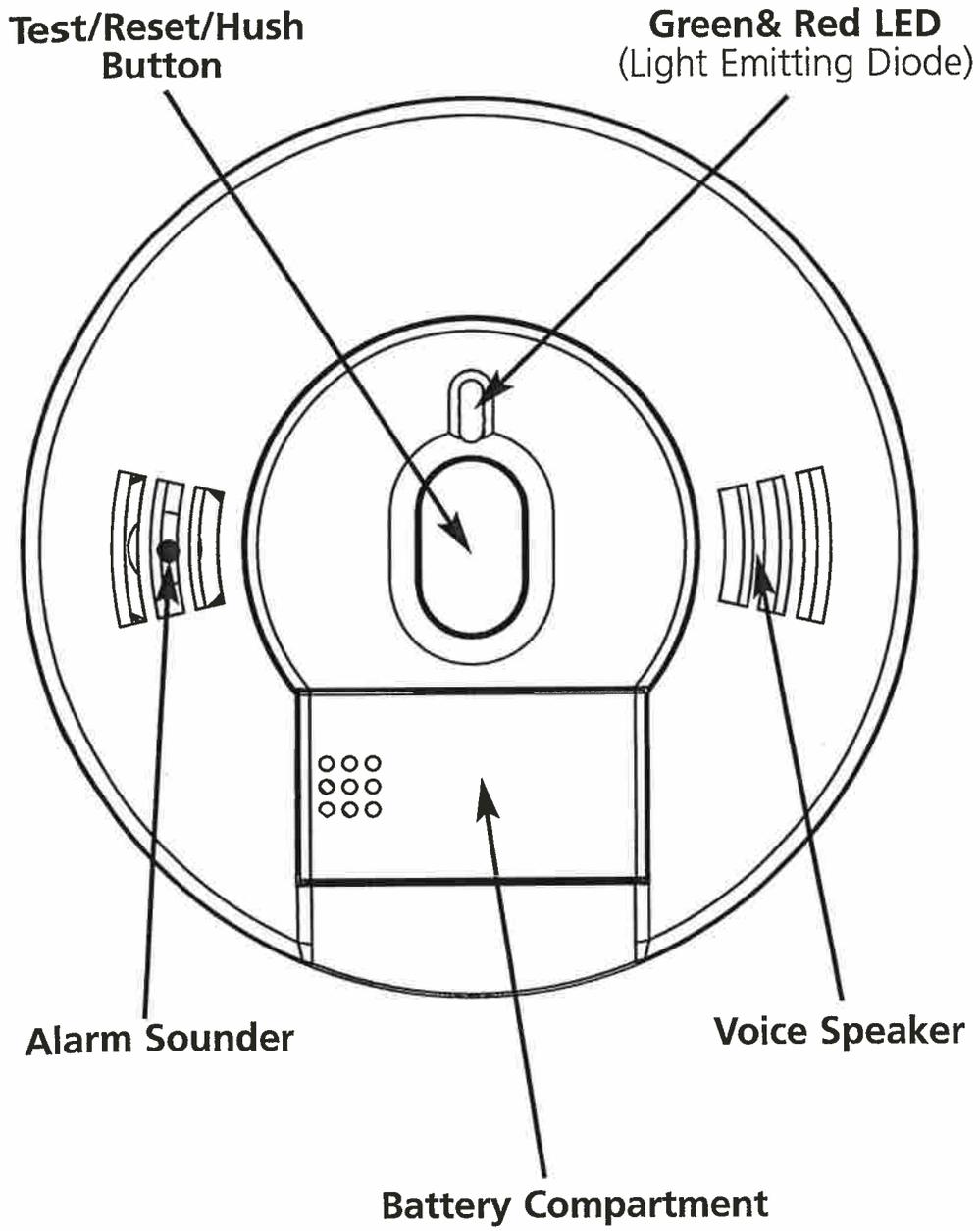
Your Kidde Smoke/CO Alarm was designed to detect both smoke and carbon monoxide from any source of combustion in a residential environment. It is not designed for use in a recreational vehicle (RV) or boat.

If you have any questions about the operation or installation of your alarm, please call our toll free Consumer Hotline at 1 800-880-6788.

The guide on page 8 will help you determine the correct location of safety products that will help keep your home a safer place.

Product View

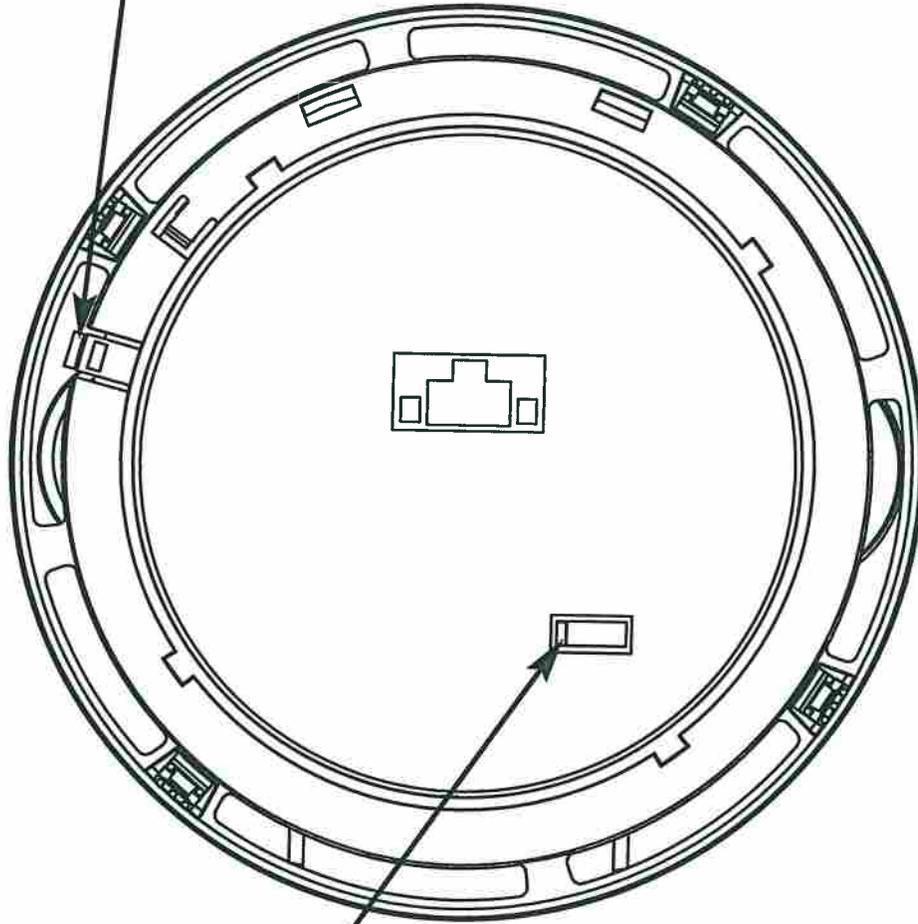
FRONT



Product View

BACK

Mounting Bracket
Tamper Resist
Latch



Battery Door
Tamper-Resist
Slide

Features

- Independent smoke and carbon monoxide sensors.
- Smoke alarm takes precedence when both smoke and carbon monoxide are present.
- Alarm/Voice message warning system that alerts you of the following conditions in the manner described below, thus eliminating any confusion over which alarm is sounding:
 - FIRE: The alarm/voice pattern is three long alarm beeps followed by the verbal warning message "FIRE! FIRE!". This pattern is repeated until the smoke is eliminated. The red LED light will flash while in alarm/voice mode.
 - CARBON MONOXIDE: The alarm/voice pattern is four short alarm beeps followed by the verbal warning message "WARNING! CARBON MONOXIDE!". After four minutes the alarm/voice pattern will sound once every minute until the unit is reset, or the CO eliminated. The red LED light will flash while in alarm/voice mode.
 - LOW BATTERY: When the batteries are low and need replacing the red LED light will flash and the unit will "chirp" one time, followed by the warning message "LOW BATTERY". This cycle will occur once every minute for the first hour. After the first hour the red LED light will continue to flash every minute accompanied by the "chirp" only sound. The voice message "LOW BATTERY" will sound once every fifteen minutes during the "chirp" only cycle. This will continue for at least seven days.
- Voice Message System that alerts user to the following conditions:
 - System announces "HUSH MODE ACTIVATED" when the unit is first put into HUSH Mode.
 - System announces "HUSH MODE CANCELLED" when unit resumes normal operation after Hush Mode has been cancelled.
 - System announces "CAUTION, CARBON MONOXIDE PREVIOUSLY DETECTED" when the unit has detected CO concentrations of 100 ppm or higher.
 - System announces "PUSH TEST BUTTON" when the unit is powered up, reminding user to activate the Test Button.
- One "chirp" every 30 seconds is an indication that the alarm is malfunctioning. If this occurs call the Consumer Hotline at 1-800-880-6788.

Features

- After ten (10) years of cumulative power up, this unit will "chirp" every 30 seconds. This is an "operational end of life" feature which will indicate that it is time to replace the alarm.
- Loud 85 decibel alarm
- HUSH Control Feature that silences the unit during nuisance alarm situations (see page 16).
- Oversized test button for easy activation
- Test button performs the following functions:
 - o Tests the units electronics and verifies proper unit operation
 - o Resets the unit during CO alarm
 - o Peak Level Memory
 - o Activates or cancels Hush® Feature
- Mounting bracket designed for easy orientation of the unit
- Green and red LED lights that indicate normal operation and alarm status
 - o Green Light: The green LED will be lit continuously (AC power), or flash every 30 seconds (battery power) to indicate the unit is operating properly. In HUSH® mode the LED blinks every 2 seconds and once per second if it is the initiating alarm.
 - o Red Light: When a dangerous level of smoke or carbon monoxide is detected the red LED light will flash and the corresponding alarm pattern (depending on the source) will sound. If the unit malfunctions, the red LED light will flash and the unit will chirp every 30 seconds indicating a system problem.
- Powered by 120V AC (60 Hz, 75 mA max) wire-in connector and is also equipped with a 9V battery backup.
- Can be interconnected to other Kidde/Nighthawk brand smoke and CO alarms (see page 15 for details).
- Tamper Resist Feature that deters children and others from removing the battery or alarm

Smoke Alarm Features

Smoke Alarm

The smoke alarm monitors the air for products of combustion that are produced when something is burning or smoldering. When smoke particles in the smoke sensor reach a specified concentration, the alarm/voice message warning system will sound, and be accompanied by the flashing red LED light. The smoke alarm takes precedence when both smoke and carbon monoxide are present.

NFPA 72 states: Life safety from fire in residential occupancies is based primarily on early notification to occupants of the need to escape, followed by the appropriate egress actions by those occupants. Fire warning systems for dwelling units are capable of protecting about half of the occupants in potentially fatal fires. Victims are often intimate with the fire, too old or young, or physically or mentally impaired such that they cannot escape even when warned early enough that escape should be possible. For these people, other strategies such as protection-in-place or assisted escape or rescue are necessary.

- Leading authorities recommend that both ionization and photoelectric smoke alarms be installed to help insure maximum detection of the various types of fires that can occur within the home. Ionization sensing alarms may detect invisible fire particles (associated with fast flaming fires) sooner than photoelectric alarms. Photoelectric sensing alarms may detect visible fire particles (associated with slow smoldering fires) sooner than ionization alarms.
- A battery powered alarm must have a battery of the specified type, in good condition and installed properly.
- AC powered alarms (without battery backup) will not operate if the AC power has been cut off, such as by an electrical fire or an open fuse.
- Smoke alarms must be tested regularly to make sure the batteries and the alarm circuits are in good operating condition.
- Smoke alarms cannot provide an alarm if smoke does not reach the alarm. Therefore, smoke alarms may not sense fires starting in chimneys, walls, on roofs, on the other side of a closed door or on a different floor.

Smoke Alarm Features

- If the alarm is located outside the bedroom or on a different floor, it may not wake up a sound sleeper.
- The use of alcohol or drugs may also impair one's ability to hear the smoke alarm. For maximum protection, a smoke alarm should be installed in each sleeping area on every level of a home.
- Although smoke alarms can help save lives by providing an early warning of a fire, they are not a substitute for an insurance policy. Home owners and renters should have adequate insurance to protect their lives and property.

Carbon Monoxide (CO) Alarm

The carbon monoxide (CO) alarm monitors the air for the presence of CO. It will alarm when there are high levels of CO present, and when there are low levels of CO present over a longer period of time. When a CO condition matches either of these situations, the alarm/voice message warning system will sound, and be accompanied by the flashing red LED light. The carbon monoxide sensor uses an electrochemical technology.

⚠ CAUTION: This alarm will only indicate the presence of carbon monoxide gas at the sensor. Carbon monoxide gas may be present in other areas.

Individuals with medical problems may consider using warning devices which provide audible and visual signals for carbon monoxide concentrations less than 30 ppm.

Operating and Installation Instructions

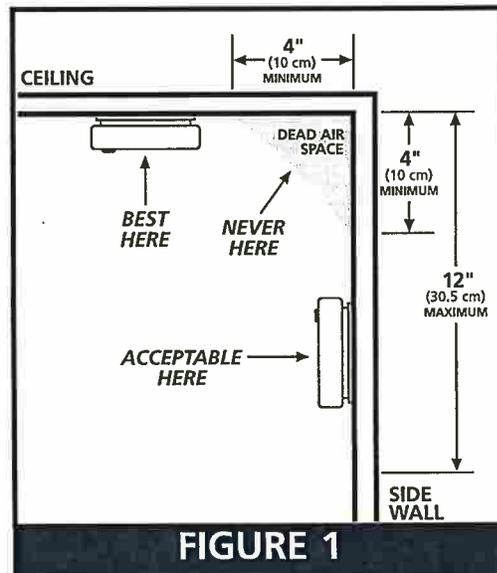
Step 1

Installation Guide:

IMPORTANT: THIS ALARM MUST BE MOUNTED ON A CEILING OR WALL. IT WAS NOT DESIGNED FOR USE AS A TABLETOP DEVICE! INSTALL ONLY AS DETAILED!

A. Recommended Installation Locations:

Kidde recommends the installation of a Smoke/CO Alarm in the following locations. For maximum protection we suggest an alarm be installed on each level of a multilevel home, including every bedroom, hallways, finished attics and basements. Put alarms at both ends of bedroom, hallway or large room if hallway or room is more than 30 ft (9.1m) long. If you have only one alarm, ensure it is placed in the hallway outside of the main sleeping area, or in the main bedroom. Verify the alarm can be heard in all sleeping areas.



Locate an alarm in every room where someone sleeps with the door closed. The closed door may prevent an alarm not located in that room from waking the sleeper. Smoke, heat and combustion products rise to the ceiling and spread horizontally.

Mounting the alarm on the ceiling in the center of the room places it closest to all points in the room. Ceiling mounting is preferred in ordinary residential construction. When mounting an alarm on the ceiling, locate it at a minimum of 4" (10cm) from the side wall (see figure 1). If installing the alarm on the wall, use an inside wall with the top edge of the alarm at a minimum of 4" (10cm) and a maximum of 12" (30.5cm) below the ceiling (see figure 1).

Operating and Installation Instructions

Sloped Ceiling Installation:

The following information is from the National Fire Protection Association and is listed in Fire Code 72. Install Smoke Alarms on sloped, peaked or cathedral ceilings at, or within 3 ft (0.9m) of the highest point (measured horizontally). NFPA 72 states "Smoke alarms in rooms with ceiling slopes greater than 1 ft to 8 ft (.3 m-2.4 m) horizontally shall be located on the high side of the room".

NFPA 72 states "A row of alarms shall be spaced and located within 3 ft (0.9 m) of the peak of the ceiling measured horizontally" (see figure 2).

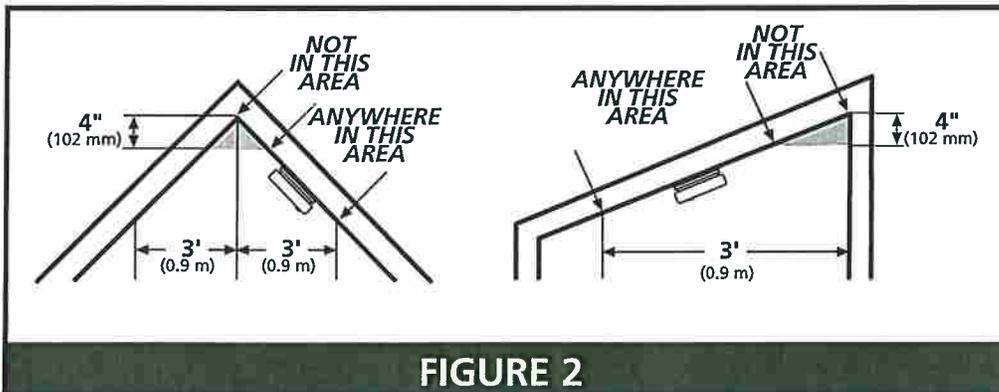


FIGURE 2

Mobile Homes:

Modern mobile homes have been designed and built to be energy efficient. Install Smoke/CO alarms as recommended previously (refer to Recommended Installation Instructions and figure 1). In older mobile homes that are not well insulated, extreme heat or cold can be transferred from the outside to the inside through poorly insulated walls and roof. This may cause a thermal barrier, which can prevent smoke from reaching an alarm mounted on the ceiling. In such mobile homes install your Smoke/CO Alarm on an inside wall with the top edge of the alarm at a minimum of 4 inches (10cm) and a maximum of 12 inches (30.5cm) below the ceiling (See figure 1). If you are not sure about the insulation in your mobile home, or if you notice that the outer walls and ceiling are either hot or cold, install your alarm on an inside wall ONLY!

THIS EQUIPMENT SHOULD BE INSTALLED IN ACCORDANCE WITH THE NATIONAL FIRE PROTECTION ASSOCIATION'S STANDARD 72 (National Fire Protection Association, Batterymarch Park, Quincy, MA 02269).

Operating and Installation Instructions



WARNING - This product is intended for use in ordinary indoor locations of family living units. It is not designed to measure compliance with Occupational Safety and Health Administration (OSHA) commercial or industrial standards.

B. Where Not to Install:

Do not install in garages, kitchens, furnace rooms or bathrooms! INSTALL AT LEAST 5 FEET AWAY FROM ANY FUEL BURNING OR COOKING APPLIANCE

Do not install within 3 ft (.9m) of the following: The door to a kitchen, or a bathroom that contains a tub or shower, forced air supply ducts used for heating or cooling, ceiling or whole house ventilating fans, or other high air flow areas. Avoid excessively dusty, dirty or greasy areas. Dust, grease or household chemicals can contaminate the alarm's sensors, causing the alarm to not operate properly.

Place the alarm where drapes or other objects will not block the sensors. Smoke and CO must be able to reach the sensors to accurately detect these conditions. Do not install in peaks of vaulted ceilings, "A" frame ceilings or gabled roofs (see figure 2). Keep out of damp and humid areas.

Install at least one (1) foot away from fluorescent lights, electronic noise may cause nuisance alarms. Do not place in direct sunlight and keep out of insect infested areas. Extreme temperatures will effect the sensitivity of the Smoke/CO Alarm. Do not install in areas where the temperature is colder than 40° Fahrenheit (4.4° Celsius) or hotter than 100° Fahrenheit (37.8° Celsius), such as garages and unfinished attics. Do not install in areas where the relative humidity (RH) is below 10%, or above 95%, non-condensing. Place away from doors and windows that open to the outside.

Smoke alarms are not to be used with detector guards unless the combination (alarm and guard) has been evaluated and found suitable for that purpose.

Operating and Installation Instructions

Step 2

Wiring Instructions:

Wiring Requirements

- This smoke alarm should be installed on a U.L. listed or recognized junction box. All connections should be made by a qualified electrician and all wiring used shall be in accordance with articles 210 and 300.3(B) of the U.S. National Electrical Code ANSI/NFPA 70, NFPA 72 and/or any other codes having jurisdiction in your area. The multiple station interconnect wiring to the alarms must be run in the same raceway or cable as the AC power wiring. In addition, the resistance of the interconnect wiring shall be a maximum of 10 ohms.
- The appropriate power source is 120 Volt AC Single Phase supplied from a non-switchable circuit, which is not protected by a ground fault interrupter.
- **⚠ WARNING:** The alarm cannot be operated from power derived from a square wave, modified square wave or modified sine wave, inverter. These types of inverters are sometimes used to supply power to the structure in off grid installations, such as solar or wind derived power sources. These power sources produce high peak voltages that will damage the alarm.

WIRING INSTRUCTIONS FOR AC QUICK CONNECT HARNESS

⚠ CAUTION! TURN OFF THE MAIN POWER TO THE CIRCUIT BEFORE WIRING THE ALARM.

- For alarms that are used as single station, DO NOT CONNECT THE RED WIRE TO ANYTHING. Leave the red wire insulating cap in place to make certain that the red wire cannot contact any metal parts or the electrical box.
- When alarms are interconnected, all interconnected units must be powered from a single circuit.
- A maximum of 24 Kidde Safety devices may be interconnected in a multiple station arrangement. The interconnect system should not exceed the NFPA interconnect limit of 12 smoke alarms and/or 18 alarms total (smoke,

Operating and Installation Instructions

CO, Smoke/CO Combination, heat, etc.). This Smoke/CO combination alarm must be counted as a smoke alarm when determining the number of units on an interconnect line. With 18 alarms interconnected, it is still possible to interconnect up to a total of 6 remote signaling devices and /or relay modules (see page 15 for details on interconnecting Kidde devices).

- The maximum wire run distance between the first and last unit in an interconnected system is 1000 feet.
- Figure 3 illustrates interconnection wiring. Improper connection may result in damage to the alarm, failure to operate, or a shock hazard.

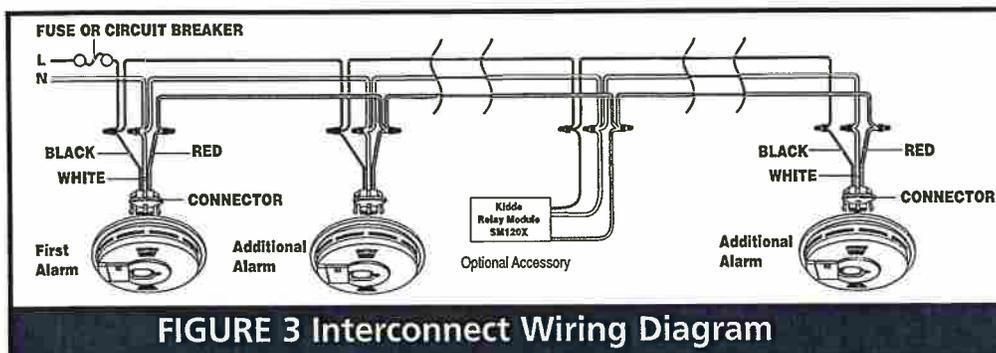


FIGURE 3 Interconnect Wiring Diagram

WIRES ON ALARM HARNESS CONNECTED TO

Black	Hot side of AC line
White	Neutral side of AC line
Red	Interconnect lines (red wires) of other units in the multiple station set up

- Make certain alarms are wired to a continuous (non-switched) power line. NOTE: Use standard UL Listed household wire (as required by local codes) available at all electrical supply stores and most hardware stores

Step 3 Mounting Instructions

⚠ CAUTION: YOUR SMOKE/CO ALARM IS SEALED AND THE COVER IS NOT REMOVABLE!

1. To help identify the date to replace the unit, a label has been affixed to the side of the alarm. Write the "Replace by" date (10 years from initial power up) in permanent marker on the label. See Alarm Replacement section for additional information.

Operating and Installation Instructions

2. Remove the mounting bracket from the back of the alarm by holding the mounting bracket and twisting the alarm in the direction indicated by the "OFF" arrow on the alarm cover.
3. After selecting the proper location for your Smoke/CO Alarm, as described on Pages 8-11, and wiring the AC QUICK CONNECT harness as described in the WIRING INSTRUCTIONS, attach the mounting bracket to the electrical box. To ensure aesthetic alignment of the alarm with the hallway, or wall, the "A" line on the mounting bracket must be parallel with the hallway when ceiling mounted, or horizontal when wall mounted.
4. Pull the AC QUICK CONNECTOR through the center hole in the mounting bracket and secure the bracket, making sure that the mounting screws are positioned in the small ends of the keyholes before tightening the screws.
5. Plug the AC QUICK CONNECTOR into the back of the alarm (see figure 4), making sure that the locks on the connector snap into place. Then push the excess wire back into the electrical box through the hole in the center of the mounting bracket.
6. Install the alarm on the mounting bracket and rotate the alarm in the direction of the "ON" arrow on the cover until the alarm ratchets into place (this ratcheting function allows for aesthetic alignment). Note: The alarm will mount to the bracket in 4 positions (every 90 degrees).
7. Turn on the AC power. The green AC Power On Indicator should be lit when the alarm is operating from AC power.
8. Two labels are included with your alarm. They have important information on what to do in case of an alarm. Add the phone number of your emergency service provider (Fire Department or 911) in the space provided. Place one label next to the alarm after it is mounted, and one label near a fresh air source such as a door or window.

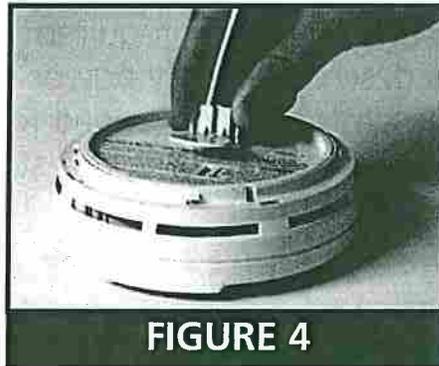


FIGURE 4

Operating and Installation Instructions

9. Pull the Battery Pull Tab (yellow tab protruding from unit) completely out of unit. This will automatically connect the battery.

Step 4: Testing the Alarm

⚠ CAUTION: Due to the loudness (85 decibels) of the alarm, always stand an arms length away from the unit when testing.

The test/reset button has four purposes. It tests the unit's electronics, resets the CO alarm, activates the HUSH feature, and activates the Peak Level Memory Feature.

After installation, TEST THE UNIT'S ELECTRONICS by pressing and releasing the test/reset button. A series of beeps will sound, followed by the message "Fire! Fire!" then another two series of beeps and the message "WARNING! CARBON MONOXIDE!" followed by 4 additional short beeps.

Weekly testing is required! If at anytime it does not perform as described, verify power is connected correctly and that the battery doesn't need replacing. Clean dust and other buildup off the unit. If it still doesn't operate properly call the Consumer Hotline at 1 (800) 880 6788.

Interconnect Feature

Your Combination Smoke/CO Alarm can be interconnected to other multiple station Kidde, Nighthawk, Kidde/Fyrnetics, and Kidde/FireX products:

- When compatible smoke alarms and heat alarms are interconnected to your Smoke/CO Alarm, they will only respond to a smoke related event.
- When mixing compatible models with battery backup with models without battery backup, be advised that the models without battery backup will not respond during an AC power failure.
- This unit is only approved to interconnect with other Kidde/Nighthawk products. It is NOT approved to interconnect with any other brand of detection product.

Operating and Installation Instructions

- This alarm is interconnect compatible with the following alarms and accessories:
 - **Smoke alarms:** 1235, 1275, 1276, 1285, i12020, i12020A, i12040, i12040A, i12060, i12060A, i4618, i4618A, KN-SMFM-I, RF-SM-ACDC, PE120, P12040, Pi2000, Pi2010, i12010S
 - **CO alarms:** KN-COB-IC, KN-COP-IC, KN-COPF-I
 - **Combo alarms:** KN-COSM-I, KN-COSM-IB, i12010SCO
 - **Heat alarm:** HD135F
 - **Relay modules:** SM120X, CO120X
 - **Strobe Light:** SL177i, SLED177i

See user guide for other devices for specific application information.

- For more information about compatible interconnect units and their functionality in an interconnect system, visit our web site at www.kidde.com.

HUSH® Control Feature

The HUSH® feature has the capability of temporarily desensitizing the smoke alarm circuit for approximately 10 minutes. This feature is to be used only when a known alarm condition, such as smoke from cooking, activates the alarm. You can put your Smoke/CO Alarm in HUSH® mode by pushing the test/reset button. If the smoke is not too dense, the alarm will silence immediately, the unit will verbally announce "HUSH MODE ACTIVATED", and the green LED will flash every 2 seconds for approximately 10 minutes. This indicates that the smoke alarm is in a temporarily desensitized condition. Your Smoke/CO Alarm will automatically reset after approximately 10 minutes. When the unit returns to normal operation after being in HUSH® mode, it will verbally announce "HUSH MODE CANCELLED", and sound the alarm if smoke is still present. The HUSH® feature can be used repeatedly until the air has been cleared of the condition causing the alarm. While the unit is in HUSH® mode, pushing the test/reset button on the alarm will also end the HUSH® period.

Operating Instructions

NOTE: DENSE SMOKE WILL OVERRIDE THE HUSH® CONTROL FEATURE AND SOUND A CONTINUOUS ALARM.

⚠ CAUTION: BEFORE USING THE ALARM HUSH® FEATURE, IDENTIFY THE SOURCE OF THE SMOKE AND BE CERTAIN A SAFE CONDITION EXISTS.

Reset Feature

If the Smoke/CO Alarm is sounding a CO alarm, pressing the test/reset button will initiate a test/reset. If the CO condition that caused the alert continues, the alarm will reactivate.

Alarm/Peak Level Memory

If the green LED is blinking once every 16 seconds, the unit has detected a hazardous condition. If the unit has detected a CO alarm or a CO level of 100 PPM or greater, pushing the Test/Reset button will result in a voice message "Caution, carbon monoxide previously detected". Peak level also happens if the unit detects smoke and then comes out of alarm. However, there is no voice message if the unit is in peak level due to smoke. When the Test/Reset button is pushed, the unit will produce three rapid beeps. Pushing the test/reset button resets the memory. It's also reset when the power is removed.

LED Indicator Operation

Red LED

The red LED will flash in conjunction with the alarm sounder. Therefore, the red LED will flash during a smoke alarm, a CO alarm, a low battery mode chirp and a unit error mode chirp.

Green LED

The green LED will flash as described below under the following conditions:

- Standby Condition (powered by AC and battery back-up): The LED will be constantly on.

Operating Instructions

- Standby Condition (powered by only battery backup): The LED will flash every 30 seconds.
- Alarm Condition: The LED will flash every second signifying that the alarm sensed a smoke or CO hazard. If the green LED is not flashing every second while sounding an alarm, then the alarm is acting as a remote sounder and an alarm in another area is initializing the warning.
- HUSH MODE Condition: The LED will flash every 2 seconds while the alarm is in HUSH mode.
- Alarm Memory: The LED blinks once every 16 seconds to indicate a hazardous condition was previously detected.

Tamper Resist Features

To make your smoke/CO alarm tamper resistant, two tamper resist features have been provided. The first is used to discourage removal of the alarm while the second is for the battery. To activate the mounting bracket tamper resist feature break off the four posts in the square holes in the trim ring (see figure 5A). When the posts are broken off, the tamper resist tab on the base is allowed to engage the mounting bracket. Rotate the alarm onto the mounting bracket until you hear the tamper resist tab snap into place, locking the alarm on the mounting bracket. Using the tamper resist feature will help deter children and others from removing the alarm from bracket.

NOTE: To remove the alarm when the tamper resist tab is engaged, press down on the tamper resist tab, and rotate the alarm off of the bracket (see figure 5B).

This alarm also has a battery carrier tamper resist feature, which helps prevent the battery carrier from being opened.

Operating Instructions

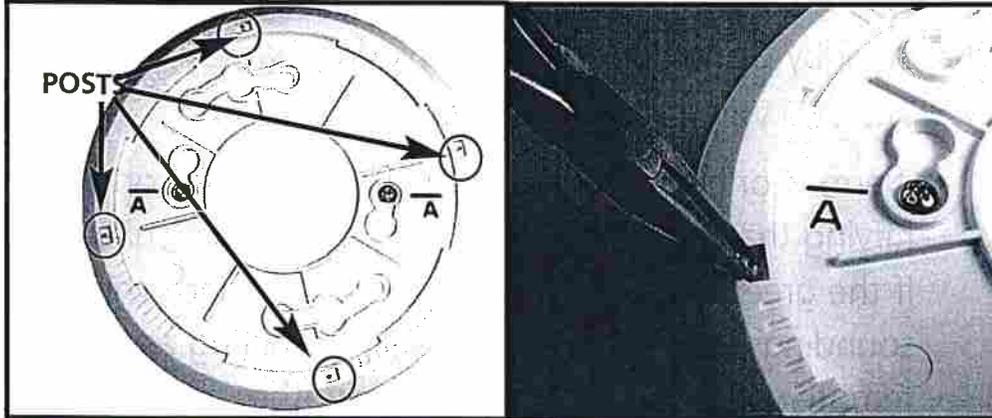


FIGURE 5A

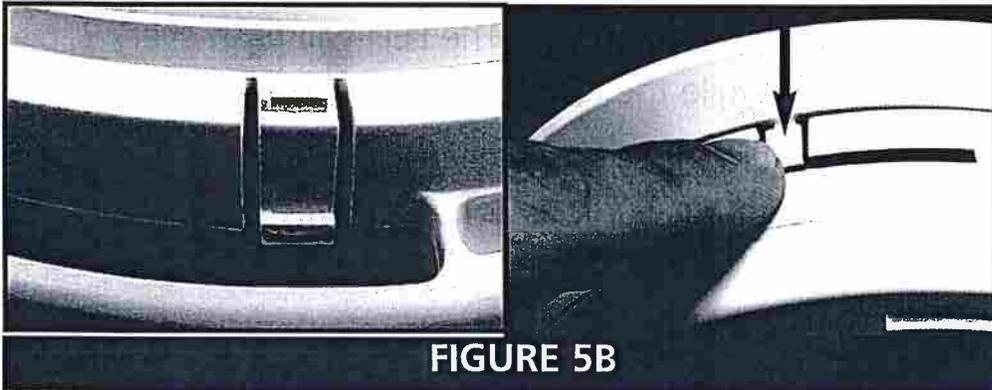


FIGURE 5B

This feature is effective in preventing the removal of the battery from this device (which will render the unit inoperable during the loss of AC power).

To activate the battery carrier tamper resist feature, remove the unit from the trim plate, disconnect the AC quick connector and locate the small cut-out in the middle of the product label on the back of the unit. With a small screwdriver, or similar tool, slide the switch towards the top of the label. (see Figure 6) The tamper resist feature is now active and the battery carrier can not be opened until the tamper resist feature is deactivated.

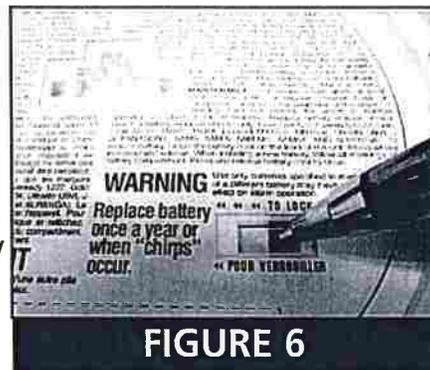


FIGURE 6

Operating Instructions

NOTE: Before activating the battery carrier tamper resist feature, make sure a fresh battery is installed in the unit and that the battery carrier is properly closed. If the battery carrier tamper resist feature is activated while the battery carrier is open, the battery carrier will not close and the unit will be inoperable during the loss of AC power.

To deactivate the battery carrier tamper resist, in order to change the smoke alarm battery, remove the unit from the trim plate (see Smoke Alarm Tamper Resist Feature if activated), disconnect the AC quick connector and locate the small cut-out in the middle of the product label. Using a screwdriver, or similar tool, slide the switch towards the bottom of the product label. The battery carrier can now be opened and the battery changed.

CO Alarm Response Time

Never restart the source of a CO problem until it has been fixed. NEVER IGNORE THE ALARM!

The CO sensor meets the alarm response time requirements of UL standard 2034. Standard alarm times are as follows:

At 70 PPM, the unit must alarm within 60-240 minutes.

At 150 PPM, the unit must alarm within 10-50 minutes.

At 400 PPM, the unit must alarm within 4-15 minutes.

This carbon monoxide alarm is designed to detect carbon monoxide gas from ANY source of combustion. It is NOT designed to detect any other gas.

Fire Departments, most utility companies and HVAC contractors will perform CO inspections, some may charge for this service. It's advisable to inquire about any applicable fees prior to having the service performed. Kidde will not pay for, or reimburse, the owner or user of this product, for any repair or dispatch calls related to the alarm sounding.

Alarm Removal

IF THE TAMPER RESIST FEATURE HAS BEEN ACTIVATED, REFER TO TAMPER RESIST FEATURE DESCRIPTION ON PAGE 17 FOR REMOVAL INSTRUCTIONS.

Remove the alarm from the mounting bracket by rotating the alarm in the direction of the "OFF" arrow on the cover.

Battery Replacement

To disconnect the AC power harness, squeeze the locking arms on the sides of the Quick Connector while pulling the connector away from the bottom of the alarm.

If any form of battery failure is detected the red LED light will flash and the unit will "chirp" one time, followed by the warning message "LOW BATTERY". This cycle will occur once every minute for the first hour. After the first hour, the red LED light will continue flashing accompanied by the **chirp only sound** every 60 seconds. The voice message "LOW BATTERY" will sound once every fifteen minutes during the chirp only cycle, and will continue for at least seven days.

If the red LED light flashes along with a chirp every 30 seconds, and is not followed by the voice message "LOW BATTERY" as described above, your unit has malfunctioned. Call our toll free Consumer Hotline at 1-800-880-6788 for instructions on how to return the unit.

⚠ CAUTION: YOUR SMOKE/CO ALARM IS SEALED AND THE COVER IS NOT REMOVABLE!

Note: If battery carrier tamper resist feature has been activated it will need to be deactivated in order to change the battery. Refer to section 3 "Battery Carrier Tamper Resist Feature" for instructions.

To replace or install the batteries press on the battery carrier and then release to allow the carrier to pop open. The battery can then be pulled out of the carrier. When installing a new battery into the carrier, make sure the battery terminals are exposed and that the polarity matches the markings printed on the battery carrier. Completely press the battery carrier down into the alarm and release, the battery carrier will lock into the closed position.

A missing or improperly installed battery will prevent the battery carrier from closing and result in improper alarm operation.

This smoke alarm uses a 9V battery. A fresh battery should last for one year under normal operating conditions.

Replace batteries with one of the following approved brands: Duracell MN1604, MX1604, Energizer 522 and

General Maintenance

Gold Peak 1604A. These batteries can be purchased at your local retailer.

⚠ WARNING! Use only the batteries specified. Different batteries may have a detrimental effect on the Smoke/CO alarm. A good safety measure is to change your battery at least once a year, or at the same time you change your clocks for daylight saving time.

Alarm Replacement

Ten years after initial power-up, this unit will "chirp" twice every 30 seconds to indicate that it is time to replace the alarm. A label has been provided on the side of the alarm that has "Replace by" printed on it. Write the replace by date on the label. The date written on the label should be ten (10) years after the alarm was initially powered.

This alarm does have end of life Hush[®] which allows you to silence the trouble chirp for two days giving you extra time to replace the unit at a more convenient time. To activate, press the test/reset button. While in the End of Life Hush[®] mode, will still detect CO and Smoke. This feature can only be used for 30 days from the time the unit first indicates end of life. At the end of the 30 day period the alarm cannot be hushed and must be replaced immediately.

REPLACE IMMEDIATELY!

General Maintenance

To keep your Smoke/CO Alarm in good working order, please follow these simple steps:

- Verify unit alarm, lights and battery operation by pushing the test/reset button once a week.
- Clean your alarm monthly using compressed air or a vacuum cleaner hose and vacuuming or blowing air through the openings around the perimeter of the alarm. If cleaning does not restore your alarm to normal operation the alarm should be replaced.

REINSTALL IMMEDIATELY AFTER CLEANING AND THEN TEST USING THE TEST/RESET BUTTON! IF TAMPER RESIST FEATURE HAS BEEN ACTIVATED, REFER TO TAMPER RESIST FEATURE DESCRIPTION ON PAGE 17 FOR REMOVAL INSTRUCTIONS.

General Maintenance

- Never use detergent or other solvents to clean the unit.
- Avoid spraying air freshener, hair spray, or other aerosols near the Smoke/CO Alarm.

Do not paint the unit. Paint will seal the vents and interfere with the sensor's ability to detect smoke and CO. Never attempt to disassemble the unit or clean inside. This action will void your warranty. Move the Smoke/CO Alarm and place in another location prior to performing any of the following:

- Staining or stripping wood floors or furniture
- Painting
- Wall papering
- Using adhesives

Storing the unit in a plastic bag during any of the above projects will protect the sensors from damage. Do not place near a diaper pail.

⚠ WARNING: Reinstall the Smoke/CO Alarm as soon as possible to assure continuous protection.

When household cleaning supplies or similar contaminants are used, the area must be well ventilated. The following substances can effect the CO sensor and may cause false readings and damage to the sensor: Methane, propane, iso-butane, iso-propanol, ethyl acetate, hydrogen sulfide, sulfide dioxides, alcohol based products, paints, thinner, solvents, adhesives, hair spray, after shave, perfume, and some cleaning agents.

Carbon Monoxide Safety Information

General CO Information

Carbon Monoxide (CO) is a colorless, odorless, and tasteless poison gas that can be fatal when inhaled. CO inhibits the blood's capacity to carry oxygen.

Possible Sources

CO can be produced when burning any fossil fuel: gasoline, propane, natural gas, oil and wood. It can be produced by any fuel-burning appliance that is malfunctioning, improperly installed, or not ventilated correctly. Possible sources include furnaces, gas ranges/stoves, gas clothes dryers, water heaters, portable fuel burning space heaters, fireplaces, wood-burning stoves and certain swimming pool heaters. Blocked chimneys or flues, back drafting and changes in air pressure, corroded or disconnected vent pipes, and a loose or cracked furnace exchanger can also cause CO. Vehicles and other combustion engines running in an attached garage and using a charcoal/gas grill or hibachi in an enclosed area are all possible sources of CO.

The following conditions can result in transient CO situations:

Excessive spillage or reverse venting of fuel-burning appliances caused by outdoor ambient conditions such as: Wind direction and/or velocity, including high gusts of wind, heavy air in the vent pipes (cold/humid air with extended periods between cycles), negative pressure differential resulting from the use of exhaust fans, simultaneous operation of several fuel-burning appliances competing for limited internal air, vent pipe connections vibrating loose from clothes dryers, furnaces, or water heaters, obstructions in, or unconventional, vent pipe designs which can amplify the above situations, extended operation of unvented fuel-burning devices (range, oven, fireplace, etc.), temperature inversions which can trap exhaust gasses near the ground, car idling in an open or closed attached garage, or near a home.

Carbon Monoxide Safety Information

CO Safety Tips

Every year have the heating system, vents, chimney and flue inspected and cleaned by a qualified technician. Always install appliances according to manufacturer's instructions and adhere to local building codes. Most appliances should be installed by professionals and inspected after installation. Regularly examine vents and chimneys for improper connections, visible rust, or stains, and check for cracks in furnace heat exchangers. Verify the color of flame on pilot lights and burners is blue. A yellow or orange flame is a sign that the fuel is not burning completely. Teach all household members what the alarm sounds like and how to respond.

Symptoms of CO Poisoning

Initial carbon monoxide poisoning symptoms are similar to the flu with no fever and can include dizziness, severe headaches, nausea, vomiting and disorientation. Everyone is susceptible but experts agree that unborn babies, pregnant women, senior citizens and people with heart or respiratory problems are especially vulnerable. If symptoms of carbon monoxide poisoning are experienced seek medical attention immediately. CO poisoning can be determined by a carboxyhemoglobin test.

The following symptoms are related to CARBON MONOXIDE POISONING and should be discussed with ALL members of the household:

1. **Mild Exposure:** Slight headache, nausea, vomiting, fatigue (often described as "Flu-like" symptoms)
2. **Medium Exposure:** Severe throbbing headache, drowsiness, confusion, fast heart rate
3. **Extreme Exposure:** Unconsciousness, convulsions, cardiorespiratory failure, death

The above levels of exposure relate to healthy adults. Levels differ for those at high risk. Exposure to high levels of carbon monoxide can be fatal or cause permanent damage and disabilities. Many cases of reported carbon monoxide

Fire Safety Information

poisoning indicate that while victims are aware they are not well, they become so disoriented they are unable to save themselves by either exiting the building, or calling for assistance. Also, young children and household pets may be the first effected. Familiarization with the effects of each level is important.

Escape Plan

Prepare and practice a home escape plan twice a year, including drills at night. Know two ways out of every room (door & window) and identify a meeting place outside the home where everyone will gather once they have exited the residence.

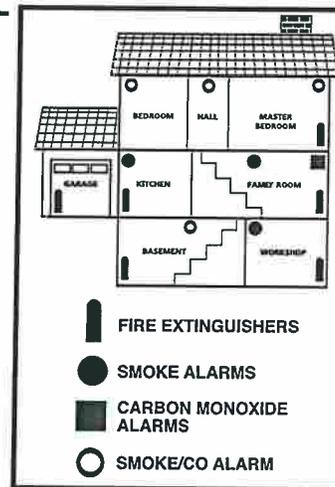
When two people have reached the meeting place, one should leave to call 911 while the second person stays to account for additional family members. **Establish a rule that once you're out, you never reenter under any circumstance!**

Fire Prevention

Never smoke in bed, or leave cooking food unattended. Teach children never to play with matches or lighters! Train everyone in the home to recognize the alarm pattern, voice message warning and to leave the home using their escape plan when it's heard. Know how

to do "Stop, Drop and Roll" if clothes catch on fire, and how to crawl low under smoke. Install and maintain fire extinguishers on every level of the home and in the kitchen, basement and garage. Know how to use a fire extinguisher prior to an emergency. Second level and higher occupied rooms with windows, should have an escape ladder.

Current studies have shown smoke alarms may not awaken all sleeping individuals, and that it is the responsibility of individuals in the household that are capable of assisting others to provide assistance to those who may not be awakened by the alarm sound, or to those who may be incapable of safely evacuating the area unassisted.



Industry Safety Standards

NFPA (National Fire Protection Association)

For your information, the National Fire Protection Association's Standard 72, reads as follows:

Where required by other governing laws, codes, or standards for a specific type of occupancy, approved single and multiple-station smoke alarms shall be installed as follows:

- (1) In all sleeping rooms and guest rooms.
- (2) Outside of each separate dwelling unit sleeping area, within 21 ft (6.4 m) of any door to a sleeping room, with the distance measured along a path of travel.
- (3) On every level of a dwelling unit, including basements.
- (4) On every level of a residential board and care occupancy (small facility), including basements and excluding crawl spaces and unfinished attics.
- (5) In the living area(s) of a guest suite.
- (6) In the living area(s) of a residential board and care occupancy (small facility).

Smoke Detection—Are More Smoke Alarms Desirable?

The required number of smoke alarms might not provide reliable early warning protection for those areas separated by a door from the areas protected by the required smoke alarms. For this reason, it is recommended that the householder consider the use of additional smoke alarms for those areas for increased protection. The additional areas include the basement, bedrooms, dining room, furnace room, utility room, and hallways not protected by the required smoke alarms. The installation of smoke alarms in kitchens, attics (finished or unfinished), or garages is not normally recommended, as these locations occasionally experience conditions that can result in improper operation.

Industry Safety Standards

California State Fire Marshall

Early warning fire detection is best achieved by the installation of fire detection equipment in all rooms and areas of the household as follows: A smoke alarm installed in each separate sleeping area (in the vicinity, but outside the bedrooms), heat or smoke detectors in the living rooms, dining rooms, bedrooms, kitchens, hallways, attics, furnace rooms, closets, utility and storage rooms, basements and attached garages.

Consumer Product Safety Commission

The Consumer Product Safety Commission (CPSC) recommends the use of at least one CO Alarm per household, located near the sleeping area.

FCC COMPLIANCE STATEMENT

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

Warranty and Service Information

TEN YEAR LIMITED WARRANTY

Kidde warrants that the enclosed alarm (but not the battery) will be free from defects in material and workmanship or design under normal use and service for a period of ten years from the date of purchase. The obligation of Kidde under this warranty is limited to repairing or replacing the alarm or any part which we find to be defective in material, workmanship or design, free of charge, upon sending the alarm with proof of date of purchase, postage and return postage prepaid, to Warranty Service Department, Kidde, 1016 Corporate Park Drive, Mebane, NC 27302.

This warranty shall not apply to the alarm if it has been damaged, modified, abused or altered after the date of purchase or if it fails to operate due to improper maintenance or inadequate AC or DC power. Any implied warranties arising out of this sale, including but not limited to the implied warranties of description, merchantability and fitness for a particular purpose, are limited in duration to the above warranty period. In no event shall the Manufacturer be liable for loss of use of this product or for any indirect, special, incidental or consequential damages, or costs, or expenses incurred by the consumer or any other user of this product, whether due to a breach of contract, negligence, strict liability in tort or otherwise. The Manufacturer shall have no liability for any personal injury, property damage or any special, incidental, contingent or consequential damage of any kind resulting from gas leakage, fire or explosion.

Since some states do not allow limitations of the duration of an implied warranty or do not allow the exclusion or limitation of incidental or consequential damages, the above limitations or exclusions may not apply to you. While this warranty gives you specific legal rights, you may also have other rights which vary from state to state.

Also, Kidde makes no warranty, express or implied, written or oral, including that of merchantability or fitness for any particular purpose, with respect to the battery.

The above warranty may not be altered except in writing signed by both parties hereto.

Your Kidde Combination Smoke & CO Alarm is not a substitute for property, fire, disability, life or other insurance of any kind. Appropriate insurance coverage is your responsibility. Consult your insurance agent. Removal of the front cover will void the warranty.

Warranty and Service Information

This alarm is not intended to alert hearing impaired individuals.

Service Information

During the specified warranty period Kidde will repair or replace, at its discretion any defective Kidde Combination Smoke & CO Alarms that are returned in a postage paid package to the following address: Kidde, Attn: Warranty Returns, 1016 Corporate Park Drive, Mebane, NC 27302, USA. Please include your name, address and phone number along with a brief description of what is wrong with the unit. For further assistance please call our toll free Consumer Hotline at 1-800-880-6788. Damage from neglect, abuse or failure to adhere to any of the enclosed instructions will result in termination of the warranty, and the unit will not be replaced or repaired.

This user guide and the products described herein are copyrighted, with all rights reserved. Under these copyright laws, no part of this user guide may be copied for use without the written consent of Kidde. If you require further information please contact our Consumer Hotline at 1-800-880-6788 or write us at: Kidde, 1016 Corporate Park Drive, Mebane, NC 27302. Our internet address is www.kidde.com.

QUESTIONS OR FOR MORE INFORMATION
Call our Consumer Hotline at **1-800-880-6788** or contact
us at our website at **www.kidde.com**



Kidde, 1016 Corporate Park Drive, Mebane, NC 27302

Made in China

U.S. Patents 6,160,487 and 6,753,786