

COMBINATION SMOKE/CO ALARM

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| JAY ELECTRIC LIMITED | |
| <input checked="" type="checkbox"/> Reviewed | <input type="checkbox"/> Reviewed as noted |
| <input type="checkbox"/> Resubmit | |
| DATE Feb. 25, 2015 | REVIEWED BY Gary R. Beer |



SC9120A - 120V AC Wire-in

SC9120BA - 120V AC Wire-in w/9V Battery Back-up

NOVATREND ENGINEERING GROUP LTD.

THIS REVIEW IS MADE ONLY TO VERIFY CONFORMITY WITH THE GENERAL DESIGN CONCEPT AND DOES NOT IMPLY APPROVAL OF THE DETAIL DESIGN INHERENT IN THE SHOP DRAWINGS. RESPONSIBILITY FOR WHICH REMAINS WITH THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR ERRORS & OMISSIONS ON THE SHOP DRAWINGS, FOR INFORMATION RELATING SOLELY TO FABRICATION PROCESSES & CONSTRUCTION TECHNIQUES AND FOR MEETING ALL CONTRACTUAL REQUIREMENTS INCLUDING CO-ORDINATION OF FIELD DIMENSIONS & CO-ORDINATION OF THE WORK OF ALL HIS SUBTRADES.

Combination Smoke and CO in one unit.

Intelligent Sensing Technology

Latching Alarm Indication

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| <input checked="" type="checkbox"/> REVIEWED | <input type="checkbox"/> REVIEWED AS NOTED |
| <input type="checkbox"/> REVISE & RESUBMIT | <input type="checkbox"/> REJECTED |

| | |
|----------------------------|-------------------|
| Single Button Test/Silence | |
| <u>Kevin Chen</u> | <u>2015-03-26</u> |
| REVIEWED BY | DATE |

Operates on 120VAC (9120BA) with 9V battery back-up

Easy access side-load battery drawer (9120BA)

"Perfect Mount" system

Interconnectable—up to 18 devices, of which 12 can be smoke alarms

"Quick-Connect" wiring harness

Benefits

Combination smoke and CO alarm eliminates the need for two electrical boxes and features a permanently installed CO sensor and a dual ionization smoke sensor.

Microprocessor controlled to reduce nuisance alarms.

When interconnected in a series, the unit that triggered the alarm rapidly flashes its red LED indicator. After the alarm condition subsides, the initiating unit will store in memory or "latch" the information and begin to flash the red LED indicator once every 5 seconds.

Eliminates confusion. Depending on what mode the alarm is in, pushing the button will test, silence, or re-test the alarm when in silence and clear the latching feature.

Keeps alarm working during a power failure.

Battery installation and removal can occur while the unit is mounted to the ceiling or wall via the side load battery compartment.

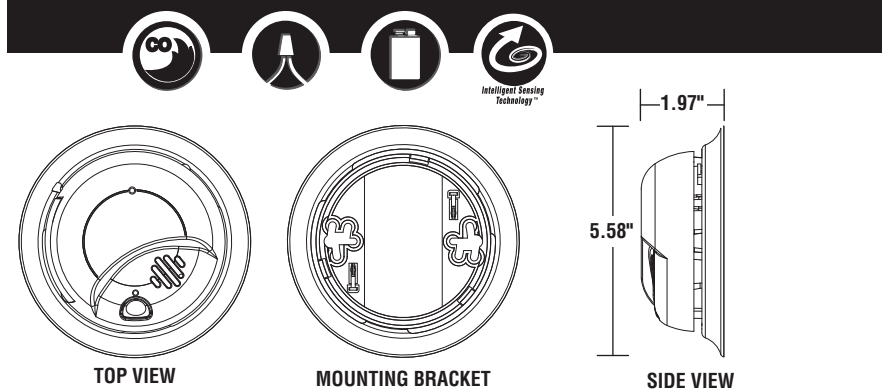
Features a gasketless base and a mounting bracket that keeps the alarm secure over a wide rotation range to allow for true alignment. This will allow fine-tuning on the positioning to compensate for out of aligned wall studs.

Can be interconnected with up to 12 smoke alarms and the remaining six be combination units and / or RM4 relays.

Provides quick and easy connection to AC power

CAT. **SC9120A - 120V AC, 60Hz, Wire-in**
SC9120BA - with 9 volt battery back-up

**COMBINATION
SMOKE/CO ALARM**



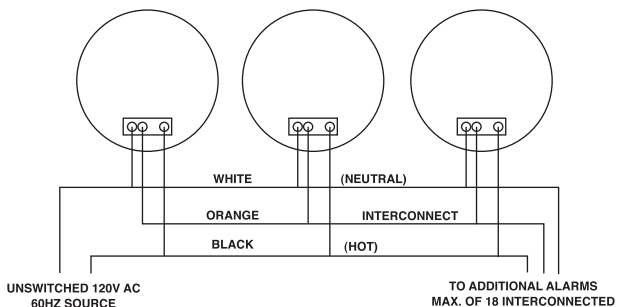
Architectural and Engineering Specifications

The combination smoke & carbon monoxide alarm models SC9120A and SC9120BA shall be BRK Electronics® and shall provide at a minimum the following features and functions:

1. A permanently installed carbon monoxide sensor and a dual ionization smoke sensor.
2. Powered by 120V AC, 60Hz and have a monitored 9V battery back-up (only SC9120BA). In battery back-up mode, the battery must last for 8 hours minimum in standby and then 12 hours minimum in alarm.
3. A visual LED (green) power-on indicator to confirm unit is receiving AC power and a (green intermittent) indicator to confirm unit has switched to battery back-up mode. A red LED to indicate when in smoke alarm and another red LED to indicate when in CO alarm.
4. The CO sensor is adjusted not to detect CO levels below 30 PPM and will not alarm when exposed to constant levels of 30 PPM for 30 days. It will alarm at the following levels under 30% to 70% relative humidity: 400 PPM CO between 4 and 15 minutes, 150 PPM CO between 10 and 50 minutes and 70 PPM between 60 and 240 minutes.
5. A test/silence button to check all alarm functions and to silence any nuisance alarms. In addition, the unit shall have a low battery silence feature (SC9120BA only) to quiet the low battery chirp for up to eight hours.
6. The unit shall perform self diagnostic tests every second and issue a malfunction warning (three rapid chirps) if the unit malfunctions.
7. A solid state piezo horn rated at 85dB at 10 ft. that provides a repeating horn pattern. Smoke Alarm: continuous beeps; CO alarm: 4 rapid beeps, pause, 4 rapid beeps, pause.
8. The unit shall be capable of operating between 40°F (4°C) and 100°F (38°C) and relative humidity between 10% and 90%.
9. The unit shall center mount to any standard electrical junction box up to 4 inches diagonal without screw removal. Larger boxes may require an adapter plate.
10. The unit shall have an optional locking mechanism to deter theft of battery and/or theft of the unit.
11. The unit shall have a plug-in connector and be capable of interconnection of up to 18 alarms.
12. The unit shall have a gasketless base for easy installation and be capable of keeping the alarm secure over a wide rotation range to allow for true alarm alignment.
13. The unit shall at a minimum meet the requirements of ULC S-531-02 and CSA 6.19-01.

Installation Of Combination Alarm

Installation of this smoke alarm must conform to all local electrical codes and Canadian Electrical Code C22.1. Interconnected units must meet the following requirements: Total length of wire interconnecting units should be less than 1000 feet, be #18 gauge or larger and be rated at least 300V. It is recommended that all units be on the same fuse or circuit breaker.



TECHNICAL SPECS :

| | |
|-------------------|---|
| Alarm Dimensions | 5.58" dia. x 1.97" H |
| Weight | 8.5 oz. |
| Operating Voltage | 120V AC 60Hz pure sine wave (SC9120A) w/9V battery backup (SC9120BA) |
| Operating Current | .09 amps (standby/alarm) |
| Temperature Range | 40°F (4°C) to 100°F (38°C) |
| Humidity Range | 10% to 90% relative humidity (RH) |
| Audio Alarm | 85dB at 10 feet |
| Test Button | Electronically simulates a smoke or CO condition, causing the unit to alarm. |
| Alarm Reset | Automatic when smoke and/or CO clears. Press test/silence button to reset manually. |
| Interconnections | Up to 18 units of which 12 can be smoke alarms |
| Sensor | Dual ionization, CO sensor Metal Oxide |
| Indicator LEDs | AC Power: Constant Green LED DC Power (SC9120BA) : Intermittent Red LED Remote Alarm: Red LED out Local Alarm: Red LED flashes rapidly Latching Alarm: Red LED flashes 5 sec. after local alarm stops |

JAY ELECTRIC LIMITED

Reviewed
 Reviewed as noted
 Resubmit

DATE: Feb. 25, 2015
 LISTING REVIEWED BY: Gary R Beer

SHIPPING SPECS :

| | |
|------------------------------|-------------------------------|
| Individual Carton Dimensions | 5.69" L x 2.25" W x 5.59" H |
| Weight | .63 lbs. |
| Cube | .04 ft ³ |
| UPC | 0 29054 51306 9 |
| Master Carton Dimensions | 14.43" L x 6.19" W x 12.63" H |
| Master Pack | 12 |
| Weight | 8.14 lbs |
| Cube | .65 ft ³ |
| UPC | 100 29054 51306 6 |
| Pallet Information | |
| Cases per Layer | 19 |
| Number of Layers | 3 |
| Cases per Pallet | 57 |
| Cube | 42.2 ft ³ |
| Weight | 464 lbs. |

Smoke alarm back up battery must meet the requirements as specified in Section 3.2.4.22, 5(c) of the 2012 OBC -

Contact:
 Dicon Global Inc.
 88B East Beaver Creek Road, Unit 6
 Richmond Hill, Ontario Canada L4B 4W2
 info@diconglobal.com
 Tel: 905-482-3270 Fax: 905-731-8267

SMOKE ALARM

| | |
|-------------------------------------|-------------------|
| JAY ELECTRIC LIMITED | |
| <input checked="" type="checkbox"/> | Reviewed |
| <input type="checkbox"/> | Reviewed as noted |
| <input type="checkbox"/> | Resubmit |
| DATE | REVIEWED BY |
| Feb. 25, 2015 | Gary R Beer |



9120A - 120V AC Wire-in

**9120BA - 120V AC Wire-in
w/9V Battery Back-up**

Features

Benefits

Dual Ionization Sensing Technology

Ionization technology is most sensitive to fast flaming fires. The sensing chamber is screened for insect protection.

"Smart Technology" system

A system of improvements designed to reduce nuisance alarms. A redesigned cover, metal sensing chamber and new integrated circuit (IC) work together to reduce nuisance alarms.

Latching Alarm Indication

When interconnected in a series, the unit that triggered the alarm rapidly flashes its red LED indicator. After the alarm condition subsides, the initiating unit will store in memory or "latch" the information and begin to flash the green LED indicator 2 seconds on, 2 seconds off.

Single Button Test/Silence

Eliminates confusion. Depending on what mode the alarm is in, pushing the button will test, silence, or re-test the alarm when in silence and clear the latching feature.

Operates on 120VAC (9120BA) with 9V battery back-up

Keeps alarm working during a power failure.

Easy access side-load battery drawer (9120BA)

Battery installation and removal can occur while the unit is mounted to the ceiling or wall via the side load battery compartment.

Locking Features

Pins are provided to lock battery drawer (*9120BA only*) and / or alarm to base. Great for apartment, dormitory or hotel applications where unauthorized removal of alarm is not desired.

Interconnectable—up to 18 devices, of which 12 can be smoke alarms

Can be interconnected with up to 12 smoke alarms and the remaining six can be combination units and / or RM4 realsys.

"Quick-Connect" wiring harness

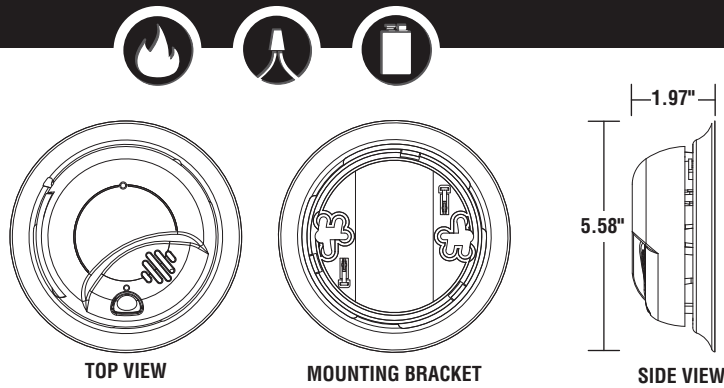
Provides quick and easy connection to AC power

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Richmond Hill, Ontario Canada L4B 4W2
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Tel: 905-482-3270 Fax: 905-731-8267



CAT. **9120A - 120V AC, 60Hz, Wire-in**
9120BA - with 9 volt battery back-up

SMOKE ALARMS



TECHNICAL SPECS :

| | |
|-------------------|---|
| Alarm Dimensions | 5.58" dia. x 1.97" H |
| Weight | 6.5 oz. (9120A) 7.8 oz. (9120BA) |
| Operating Voltage | 120V AC 60Hz (9120A) 120V AC 60Hz w/9V battery backup (9120BA) |
| Operating Current | .04 amps (standby/alarm) |
| Temperature Range | 40°F (4°C) to 100°F (38°C) |
| Humidity Range | 10% to 90% relative humidity (RH) |
| Audio Alarm | 85dB at 10 feet |
| Test Button | Electronically simulates the smoke condition, causing the unit to alarm. |
| Alarm Reset | Automatic when smoke clears |
| Interconnections | Up to 18 units of which 12 can be smoke alarms |
| Sensor | Dual chamber ionization |
| Indicator LEDs | AC Power: Constant Green LED DC Power (9120BA) : Intermittent Red LED Remote Alarm: Red LED out Local Alarm: Red LED flashes rapidly Latching Alarm: Green LED flashes 2 sec. on / 2 sec. off after local alarm stops |
| Listing | ULC S-531-02 |

Architectural and Engineering Specifications

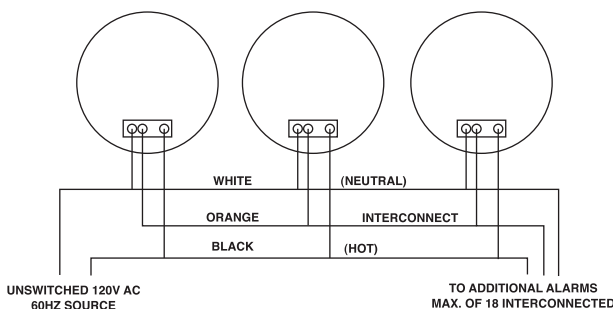
- The unit shall be capable of self restoring.
- A screened sensing chamber to prevent entry of small insects thereby reducing the probability of unwanted nuisance alarms.
- Powered by 120V AC, 60Hz and have a monitored 9V battery backup (model 9120BA only).
- A visual LED (green) power-on indicator to confirm unit is receiving power.
A visual LED (red) power-on indicator to confirm unit is working properly.
- A test button to check all alarm functions by stimulating the chamber to simulate a smoke condition, causing the unit to alarm.
- A solid state piezo horn rated at 85dB minimum at 3 meters.
- The unit shall be capable of operating between 4 degrees C (40 degrees F) and 38 degrees C (100 degrees F) and relative humidity between 10% and 90%
- The unit shall center mount to any standard electrical junction box up to 4 inches diagonally without screw removal and shall be listed for wall or ceiling mounting.
- The unit shall have an optional locking mechanism to deter battery removal (model 9120BA only) and/or theft of the unit.
- The unit shall have a gasketless base for easy installation and be capable of keeping alarm secure over a wide rotation range to allow for true alarm alignment.
- The unit shall have a plug in connector and be capable of interconnection of up to 18 alarms, 12 of which can be smoke alarms.
- The unit shall at a minimum meet the requirements of ULC S-531-02.

SHIPPING SPECS :

| | |
|------------------------------|---|
| Individual Carton Dimensions | 5.69" L x 2.25" W x 5.59" H |
| Weight | .53 lbs. (9120A); .61 lbs. (9120BA) |
| Cube | .04 ft ³ |
| UPC | 9120A: 0 29054 00109 2 9210BA: 0 29054 00108 5 |
| Master Carton Dimensions | 14.43" L x 6.19" W x 12.63" H |
| Master Pack | 12 |
| Weight | 7.0 lbs (9120A); 7.9 lbs. (9120BA) |
| Cube | .653 ft ³ |
| UPC | 9120A: 100 29054 00109 9 9210BA: 100 29054 00108 2 |
| Pallet Information | |
| Cases per Layer | 19 |
| Number of Layers | 3 |
| Cases per Pallet | 57 |
| Cube | 42.2 ft ³ |
| Weight | 359 lbs. (9120A); 450 lbs. (9120BA) |

Installation Of Smoke Alarm

Installation of this smoke alarm must conform to all local electrical codes and Canadian Electrical Code C22.1. Interconnected units must meet the following requirements: Total length of wire interconnecting units should be less than 1000 feet, be #18 gauge or larger and be rated at least 300V. It is recommended that all units be on the same fuse or circuit breaker.



ULC S-531-02 LIMITED
 Reviewed as noted
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Smoke alarm back up battery must meet the requirements as specified in Section 3.2.4.22, 5(c) of the 2012 OBC -

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