

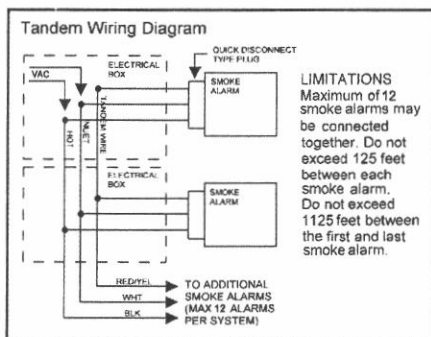
WIRING TWO OR MORE SMOKE ALARMS Tandem Installation

NOTICE: All smoke alarms in a tandem installation must be controlled by the same fuse or circuit breaker. Otherwise tandem units will not operate. Tandem will operate in the event of AC power failure if battery is connected to the smoke alarm.

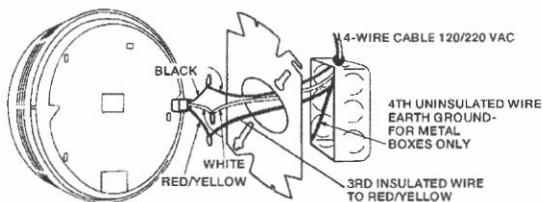
LIMITATIONS: A maximum of 12 smoke alarms ("9120/9123 or 9220/9223") may be connected together. Do not exceed 125 feet between each smoke alarm. Do not exceed 1125 feet between first and last smoke alarm.

NOTICE: A maximum of six (6) smoke alarms of either model 9120/9123 or 9220/9223 with the relay options (F, TF, HF) may be tandem interconnected.

Wire used for interconnection shall be in accordance with article 760 of the latest edition of National Electrical Code (NFPA 70) and must not exceed a resistance of 10 ohms.



- Run a minimum of 16 gauge, 3-conductor cable, plus ground (4 wires) to the first alarm junction box from a power supply and between all smoke alarms that are to be connected together. Use U.L. Listed Class 1 wire.
- Make wire connections to the supplied plug-in connector as follows: black to black, white to white, 3rd conductor to the red/yellow wire. The red/yellow wire should be stripped to make the connection. Connect ground wire between metal outlet boxes.



NOTES ON TANDEM INTERCONNECTING MODELS

- DO NOT** connect Gentex smoke alarms to other manufacturers' smoke alarms.
- No more than 12 Gentex models 9120T, H/9123T, H or 9220T, H/9223T, H may be connected in tandem.
- No more than 6 Gentex models 9120F, TF, HF/9123F, TF, HF or 9220F, TF, HF/9223F, TF, HF may be connected in tandem.
- All units connected in tandem **MUST** get their power from the same circuit, that is, all smoke alarms in tandem must be controlled by the same fuse or circuit breaker.
- After installation to verify proper working conditions all horns must sound in this system.

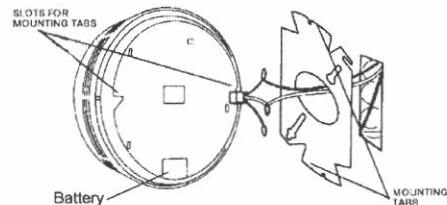
CAUTION: Failure to observe any of the conditions set forth may cause system malfunction and damage to the smoke alarm.

BATTERY INSTALLATION

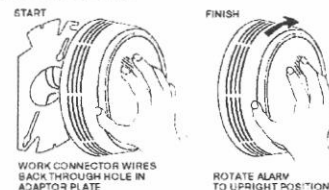
- Remove smoke alarm from mounting plate by turning counter-clockwise.
- Remove AC power connector and unsnap power leads from top of the old battery. Snap new battery onto snaps and reinsert battery through hole in back of smoke alarm. **WARNING:** Units with battery back-up will not provide power or transmit an alarm to AC only units in the event of an AC power failure. All battery back-up units in tandem with good batteries will operate normally during an AC power failure for a minimum of 24 hours.
- Use only Duracell MN 1604 battery with the 9000 Series smoke alarms.

MOUNTING: PLATE & SMOKE ALARM

- Lace the connector through the provided mounting plate and secure the plate to the junction box.
- Plug the wire connector into the smoke alarm base.

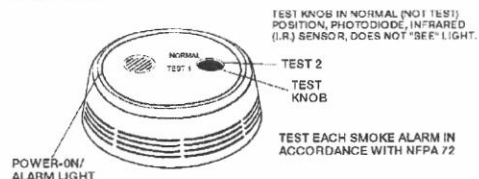


- Place smoke alarm up to mounting plate, rotating it clockwise until smoke alarm firmly snap locks into place. Keep smoke alarm parallel to mounting plate so upper and lower tabs on plate seat correctly into smoke alarm.



CHECKOUT & TROUBLESHOOTING

- Turn test knob to NORMAL position and install battery and then supply house power to smoke alarm. The red indicator light should flash every 15-30 seconds, showing smoke alarm is operating properly.
- If red light is not flashing or the green LED is not on:
 - Check that the battery is installed.
 - Check the connector plug and wire connections. **NOTE:** Be sure you turn off power before checking wire connections.
 - If power supply and wiring check out, but red light does not flash or green LED is still off, return the smoke alarm to manufacturer. See TO RETURN A SMOKE ALARM.
 - When powering up smoke alarms in a tandem installation and all smoke alarms sound immediately, inspect all smoke alarms for those with an illuminated indicator light. These will be the trouble units.
- Testing with Test Knob:
 - Rotate test knob counter-clockwise to TEST 1 position and wait up to 20 seconds for smoke alarm to sound. If smoke alarm does not sound after 20 seconds, return smoke alarm for service.
 - After successfully testing smoke alarm, return test knob to NORMAL (non-test) position and wait 20 seconds for alarm to stop sounding.



- To test smoke alarm for high sensitivity, turn test knob clockwise to TEST 2 position. Alarm should remain silent.
- Make sure to return test knob back to its normal position.
- If your smoke alarm sounds during this test it means the smoke alarm's sensitivity has become too high and may cause false alarms.

- f. This could mean your smoke alarm is dirty and should be cleaned as described in the maintenance procedure below.
- g. If the smoke alarm continues to alarm, for TEST 2 position following cleaning, return it to Gentex for service.
- h. To check for proper smoke entry into your smoke alarm's sensing chamber, Gentex recommends using the Home Safeguard Smoke Spray or CHEKKIT® SMOKE Detector Tester from SDI.
- i. This test should be performed once a year and should be sprayed from a distance no closer than 12 inches from the smoke alarm.

MAINTENANCE

After your smoke alarm has been in operation for a period of time or if it was installed prior to the completion of all building construction, your device may have become more sensitive due to dirt build-up in the smoke alarm's optic sensing chamber which could cause nuisance alarms or could cause activation from small amounts of smoke build-up.

If this should occur, following this simple washing procedure will restore your smoke alarm back to its original condition.

For further information, regarding frequency of cleaning and testing, refer to NFPA 72, NFPA, Batterymarch Park, Quincy, MA 02269.

NOTICE: Failure to follow full cleaning instructions could result in damage to this smoke alarm. DO NOT remove all smoke alarms at the same time for cleaning.

1. Turn off electrical power to the smoke alarm.
2. Rotate the smoke alarm counter-clockwise to remove it from its mounting plate.
3. Unplug the connector from the back of the smoke alarm. Do not remove the wire connection; leave the connector for your replacement smoke alarm or jumper plug. Remove the battery.
4. Select three (3) standard size wash buckets and fill them each with one gallon of normal tap water (**distilled or de-ionized treated water is recommended as a final rinse if water is extremely hard in your area**).
5. Add 1/8 cup of Ivory dishwashing liquid to the first bucket of water and allow it to mix thoroughly, then place one dirty smoke alarm into the soap water mixture until it becomes completely covered or submerged. **NOTE:** If the smoke alarms are exceptionally dirty, you may wish to first wipe off any excess dirt before washing unit so as not to dirty the wash water too quickly.

DO NOT open smoke alarm for cleaning. IF SMOKE ALARM IS OPENED DURING CLEANING, PRODUCT WARRANTY BECOMES VOID.

NOTICE: ONLY IVORY DISHWASHING LIQUID IS TO BE USED. OTHER BRANDS ARE NOT RECOMMENDED AND MAY CAUSE YOUR SMOKE ALARM TO MALFUNCTION.

6. Allow smoke alarm to soak for approximately 10 minutes (longer if extremely dirty). Then agitate for 5 or 10 seconds to flush out any remaining dirt left inside smoke alarm's housing.
7. Remove smoke alarm from wash water and transfer directly to one of the first rinse buckets containing clear water. Again, allow smoke alarm to become completely submerged, agitate once more for 5 or 10 seconds to remove soap residue.
8. Finally, transfer smoke alarm to your second and final rinse bucket, repeating method found in Step 7, then remove smoke alarm to a clean dry area for a period of 48 hours to allow it to thoroughly dry.

IMPORTANT: IT IS RECOMMENDED TO CHANGE WASH AND RINSE WATER AFTER FIVE (5) SMOKE ALARMS. IF YOUR SMOKE ALARMS ARE EXTREMELY DIRTY, WATER SHOULD BE CHANGED MORE FREQUENTLY.

NOTICE: SMOKE ALARMS ARE TO BE AIR DRIED ONLY. DO NOT PLACE ALARM IN OVEN, MICROWAVE OR USE A HOT AIR BLOWER TO ACCELERATE DRYING TIME. THIS COULD RESULT IN DAMAGE TO YOUR SMOKE ALARM.

In the event you experience difficulty in the cleaning of your smoke alarm or if you have any questions, please contact Gentex Corporation or your local Gentex distributor.

▲ WARNING If the smoke alarm does not work properly, do not try and fix it yourself. This will void your warranty. See "To Return a Smoke Alarm" for instructions to return smoke alarms that do not operate properly. **DO NOT TRY TO FIX IT YOURSELF.**

IMPORTANT: Gentex recommends smoke alarms be tested a minimum of once a week.

WARNING! Never use an open flame of any kind to test your smoke alarm. You may ignite and damage the smoke alarm as well as your home. The test feature of your smoke alarm accurately simulates smoke conditions and tests the smoke alarm's functions as required by Underwriters Laboratories.

WARNING! Do not cover, tape, or otherwise block the openings of your smoke alarm. These openings are designed to allow air to pass through your smoke alarm, thus sampling the air around the smoke alarm.

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

FAILURE TO REGULARLY CLEAN THIS SMOKE ALARM WILL RESULT IN FALSE ALARMS. A BUILD UP OF DUST CREATES AN OBSCURATION THAT SIMULATES SMOKE. THIS MEANS THE UNIT WILL GO INTO ALARM WITHOUT A FIRE CONDITION.

TO RETURN A SMOKE ALARM

Should you experience problems with your smoke alarm, proceed as follows:

1. Turn off electrical power to the smoke alarm.
2. Twist the smoke alarm counter-clockwise to remove it from its mounting plate.
3. Unplug the connector from the back of the smoke alarm. Do not remove the wire connection; leave the connector for your replacement smoke alarm.
4. Remove battery from smoke alarm. Do not ship smoke alarm with battery still attached to battery clip.
5. Carefully pack (the manufacturer cannot be responsible for consequential damage) and return to the manufacturer. Include complete details as to exact nature of difficulties being experienced and date of installation.
6. Return to: Gentex Corporation, 10985 Chicago Drive, Zeeland, Michigan 49464. Prior to returning, call Gentex at 1-800-436-8391 or e-mail FP_RMA@gentex.com to obtain a RMA Number from our return department.

LIMITED WARRANTY

For a period of 12 months from the date of purchase, or a maximum of 18 months from the date of manufacture, Gentex warrants to you, the original consumer purchaser, that your Smoke Alarm will be free from defects in workmanship, materials, and construction under normal use and service. If a defect in workmanship, materials, or construction should cause your Smoke Alarm to become inoperable within the warranty period, Gentex will repair your Smoke Alarm or furnish you with a new or rebuilt replacement Smoke Alarm without charge to you except for postage required to return the Smoke Alarm to us. Your repaired or replacement Smoke Alarm will be returned to you free of charge and it will be covered under this warranty for the balance of the warranty period.

This warranty is void if our inspection of your Smoke Alarm shows that the damage or failure was caused by abuse, misuse, abnormal usage, faulty installation, improper maintenance, or repairs other than those performed by us.

ANY WARRANTIES IMPLIED UNDER ANY STATE LAW, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, APPLY ONLY FOR THE WARRANTY PERIOD SPECIFIED ABOVE. PLEASE NOTE THAT SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE EXCLUSION MAY NOT APPLY TO YOU.

GENTEX WILL NOT BE LIABLE FOR ANY LOSS, DAMAGE, INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND ARISING IN CONNECTION WITH THE SALE, USE, OR REPAIR OF THIS SMOKE ALARM. PLEASE NOTE THAT SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE EXCLUSION MAY NOT APPLY TO YOU.

If a defect in workmanship, materials, or construction should cause your Smoke Alarm to become inoperable within the warranty period, you must return the Smoke Alarm to Gentex postage prepaid. You must also pack the Smoke Alarm to minimize the risk of it being damaged in transit. You must also enclose a return address. Smoke Alarms returned for warranty service should be sent to: Gentex Corporation, 10985 Chicago Drive, Zeeland, MI 49464.

If we receive a Smoke Alarm in a damaged condition as the result of shipping, we will notify you and you must file a claim with the Shipper.

THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS. YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

Important Notice:

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