

# ***MasterGuard***

(COVER ART)

PHOTOGRAPH OF ALARM

*Heat Activated Fire Alarm  
Model QR-50  
Owner's Manual*



MASTERGUARD, L.P.  
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 COPPELL, TX 75019  
 PHONE (972) 393-1700 FAX (972) 393-1701  
 www.masterguard.com

*Welcome to the growing circle of MasterGuard protected families. You will be thankful for your wise investment in MasterGuard each time you read about a residential fire. If you should have any questions or comments concerning your MasterGuard products, feel free to contact your Independent Authorized Dealership.*

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*Independent Authorized Dealership*

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<i>Address</i>	<i>City</i>	<i>State/Prov.</i>	<i>Zip/PC</i>
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*Telephone Number*

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*Sales Representative*

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<i>Address</i>	<i>City</i>	<i>State/Prov.</i>	<i>Zip/PC</i>
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*Telephone Number*

**NOTICE:** Be sure the installer tests each alarm in your presence and instructs you on the operation and maintenance of the device.

**NOTICE:** Properly functioning smoke alarms give earlier warning than Heat Alarms in nearly all residential fires. This is because detectable levels of smoke almost always develop before detectable levels of heat.

The MasterGuard QR-50 Heat Alarm has been tested and listed by Underwriter's Laboratories, Inc [Listing No. S2117]

**HEAT ACTIVATED FIRE ALARM**

Thank you for purchasing the QR-50 Heat Alarm by MasterGuard. The Heat Alarm plays an important role in protecting your family and home from the dangers of fire. Please carefully read and follow the information in this booklet to ensure that your alarm will operate properly and is located in the areas best suited for heat activation.

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**1. Heat Alarm Features**

- Activated by heat, not smoke. 117°, 136° and 175° sensors are available. See underside of sensor for printed temperature value.
- Mechanically powered and requires no batteries or electrical hookup.
- All metal construction to ensure extreme reliability and long life.
- No maintenance required.
- Generates an extremely loud, unique mechanical ringing when activated by heat.
- Not affected by dust, insects or the byproducts of cooking. This makes the Heat Alarm ideal for household locations not typically suitable for a traditional smoke alarm.
- Space rating of 50 feet.
- Alarm audibility and functionality can be tested by simply removing the Heat Sensor.

**2. Proper Placement of the Heat Alarm**

The QR-50 Heat Alarm adds an extra level of fire protection to most household settings. Although the primary form of fire warning is properly located and maintained smoke alarms, complete fire protection can be achieved from a combination of heat and smoke alarms properly installed throughout the home. The QR-50 is for indoor, residential use only.

MasterGuard recommends the following locations for Heat Alarm installations in the home:

- Kitchen. Most household fires originate in the kitchen. The QR-50 is ideal for the kitchen since it is not activated by the byproducts of cooking, i.e. smoke or cooking scents. Recommended Heat Sensor rating = 117°.
- Attic. The QR-50 is not affected by dust, small insects or seasonal changes in temperature. Its no maintenance requirement will ensure that the alarm will still be functional for many years. Recommended Heat Sensor rating = 175°.
- Utility and Furnace Rooms. The low volume steam and gases produced by mechanical equipment will not activate the QR-50. Recommended Heat Sensor rating = 136°.
- Attached Garages. Exhaust gases from vehicles will not trigger the Heat Alarm. Recommended Heat Sensor rating = 136°.

Note: As with any alarm, test activate the alarm to determine that the sound volume is sufficiently loud in all sleeping areas to wake the room's occupants.

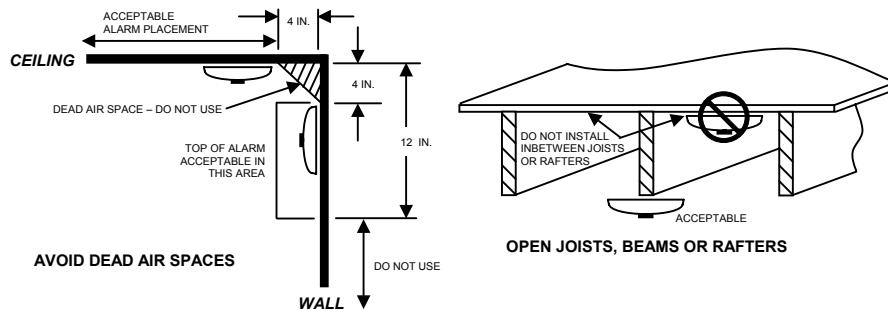
### 3. Additional Placement Information

MasterGuard recommends complete home fire protection, achieved by installing a combination of Smoke and Heat Alarms in their appropriate locations throughout the house. Do not install Heat Alarms in bedrooms without accompanying Smoke Alarms.

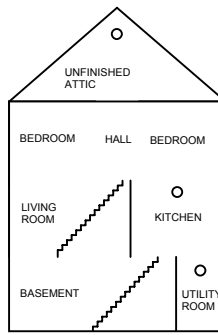
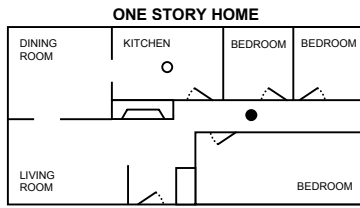
Heat from a fire rises to the ceiling, spreads out across the ceiling surface and begins to bank down from the ceiling. The corner where the ceiling and the wall meet is an air space into which heat has difficulty penetrating. This is dead air space! Alarms must not be placed in the dead air space. (See drawing below)

- Install the Heat Alarm on the ceiling, as close to the center of the room as possible. If this is not practical, mount the alarm no closer than 4 inches from a wall or corner. If possible the alarm should be moved in the direction of potential fire sources. Do not install on ceilings that have radiant heating. (See drawing below)
- If mounting on the ceiling is not an option, and if local codes allow wall mounting, install the Heat Alarm on the wall no closer than 4 inches but no more than 12 inches from a ceiling/wall intersection. (See drawing below)
- Install Heat Alarms on peaked, cathedral, or gabled ceilings within 3 feet from the highest point (measured horizontally).
- DO NOT install Heat Alarms within 3 feet of heating and cooling supply vents.
- DO NOT install alarms behind drapes, doors or other objects that will impede airflow.
- Heat Alarms shall be installed within the strict limitation of their listed spacing in rooms with smooth, level ceilings. The QR50 has a Space Rating of 50 feet.
- The maximum installed spacing shall be 50 percent of the listed spacing in the uphill direction from a detector in a room with a ceiling slope greater than one-foot rise per 8 feet horizontally.
- On level ceilings with open joists or beams, all alarms shall be mounted on the bottom of such joists or beams. (See drawing below)
- Reduced spacing may be required due to structural characteristics of the protected area, possible drafts, or other conditions affecting detector operation. Alarms installed on a joisted ceiling shall have their smooth ceiling spacing reduced where this spacing is measured at right angles to solid joists; in the case of Heat Alarms, this spacing shall not exceed one-half of the listed spacing.

Additional Placements Guides:



Existing Homes:

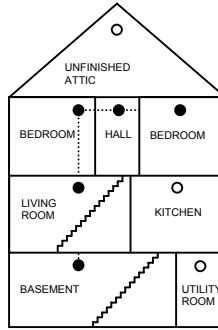
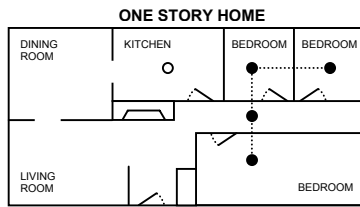


KEY

- NFPA MINIMUM REQUIRED Smoke Alarm location
- Recommended Heat Alarm location

Note: Additional Alarms should be added for complete protection

New Construction:



KEY

- NFPA MINIMUM REQUIRED Smoke Alarm location
- Recommended Heat Alarm location
- .... Electrical interconnection

Note: Additional Alarms should be added for complete protection

*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).*

*For your information, the National Fire Protection Association's Standard 72, Section 11.5.1 covering required protection in One- and Two-Family Dwelling Units, reads as follows:*

*11.5.1.1 Smoke Detection. Where required by applicable laws, codes, or standards for the specified occupancy, approved single- and multiple-station smoke alarms shall be installed as follows:*

- (1) *In all sleeping rooms*  
*Exception: Smoke alarms shall not be required in sleeping rooms in existing one- and two-family dwelling units.*
- (2) *Outside each separate sleeping area, in the immediate vicinity of the sleeping rooms*
- (3) *On each level of the dwelling unit, including basements*  
*Exception: In existing one- and two-family dwelling units, approved smoke alarms powered by batteries shall be permitted.*

**A.11.8.4 Heat Detection.**

*General. While Chapter 11 does not require heat detectors as part of the basic protection scheme, it is recommended that the householder consider the use of additional heat detectors for the same reasons presented under A-11.8.3. The additional areas lending themselves to protection with heat detectors are the kitchen, dining room, attic, (finished or unfinished), furnace room, utility room, basement, and integral or attached garage. For bedrooms, the installation of a smoke detector is recommended over the installation of a heat detector for protection of the occupants from fires in their bedrooms.*

*Further, the California State Fire Marshal states that the minimum number of required smoke alarms is not enough to give the earliest warning under all conditions. The California State Fire Marshal states that: "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), and heat or smoke alarms in the living rooms, dining rooms, bedrooms, kitchens, hallways, attics, furnace rooms, closets, utility and storage rooms, basement and attached garages.”

#### 4. How to Power and Fuse the Heat Alarm

While holding the Heat Alarm in your left hand, insert the winding wrench (located in pocket on back of the alarm) into the slot and wind the alarm in the clockwise direction until it will advance no further (38 turns). Hold this position.



While still using your left hand to hold the alarm, use your left thumb to hold the winding key in the FULLY WOUND position. The steel pin in the center of the front face of the alarm should now be free to be depressed to the level of the chrome snap. If not, double check to be sure the alarm is fully wound.



Use your right hand to snap the round Heat Sensor to the center position on the front face of the Heat Alarm. Press the Sensor from its center to avoid damage to the Sensor. Do not force the Heat Sensor into place, but it should snap firmly. Gently allow the winding wrench to be released. This will cause the alarm to ring briefly. The wrench will travel counter-clockwise a short distance and stop.



Important: To prevent the snap from breaking or loosening, push the Sensor onto the alarm with your thumb centered on the Sensor. Do not bend the metal of the Sensor while pushing the Sensor onto the snap.

The Alarm is now wound, fused and ready to be mounted to the ceiling/wall!

#### 5. How to Mount the Heat Alarm

- 1) Determine proper location for Heat Alarm from the information in the previous sections.
- 2) Place the mounting bracket against the ceiling or wall, then using the mounting bracket as a guide, select the top and bottom holes and mark their location with a pencil.
- 3) Using a 1/8 drill bit, drill two pilot holes in the center of the two marked hole locations. This will determine if a wooden stud or beam is present.
- 4) If a wood stud is present, use the two 1-inch screws to securely fasten the mounting bracket to the ceiling/wall.
- 5) If no wood stud is present, carefully screw the two plastic wall anchors into the pre-drilled holes. Make sure the anchors are fully seated.
- 6) Securely fasten the mounting bracket to the plastic wall anchors with the 1-inch screws.
- 7) Position the fully powered Heat Alarm to the center of the bracket and turn clockwise. The alarm will lock into place.

## 6. Testing and Maintaining Your Heat Alarm

No maintenance of the Heat Alarm is required for the unit to continue functioning. However, MasterGuard recommends annual inspection and testing to ensure familiarity with the alarm's function and unique sound.

If cleaning of the alarm becomes necessary, use only water with a mild detergent. DO NOT SUBMERGE the alarm in any liquid. Thoroughly dry the alarm prior to re-hanging.

DO NOT PAINT any surface of the alarm or Heat Sensor.

To activate the Heat Alarm as part of a fire drill or annual inspection, simply remove the Heat Sensor from the center face of the alarm. The alarm will ring for approximately five minutes. When testing is complete, rewind and reinstall the Heat Sensor to the alarm per sections 4 and 5 of these instructions.

The Heat Alarm can be tested by exposing the Heat Sensor to high temperatures (i.e. hairdryer, heat gun). However, this will require the replacement of the Heat Sensor upon completion of the test. Before undertaking this type of test activation, be sure you have a replacement fuse available. Extreme care should be taken to avoid burns during this type test.

## 7. Troubleshooting Your Heat Alarm

*Problem: The Heat Sensor will not snap on.*

*Solution: The Heat Sensor will not snap on if the Alarm is not FULLY WOUND. Check that it is fully wound by ensuring that the steel pin on the front can be depressed to the level of the chrome snap.*

*Problem: The alarm in my attic activated even though there was no fire.*

*Solution: The temperature rating of the Heat Sensor was too low. Try a higher temperature such as 136° or 175° F. Check attic alarms periodically to ensure the alarm has not been triggered.*

*Problem: How do I know if the alarm has been activated when we were out of the house?*

*Solution: When the Heat Alarm has been activated, a round, bright orange warning becomes visible in the center of the Heat Sensor. If the entire Heat Sensor has been removed, a larger bright orange warning label is visible. If either warning is visible the alarm must be rewound and a new Heat Sensor installed.*

## 8. Heat Alarm Limitations

- Heat Alarms are only activated by heat; they will not detect smoke. Sufficient amounts of heat must be present for the Heat Alarm to operate.
- Heat Alarms may not activate from fires that start where heat from the fire cannot reach the Heat Alarm. Such as in chimneys, in walls, on roofs, on the exterior of the home, on the other side of closed doors, in unprotected attics, or otherwise beyond the alarm's space rating.
- Heat Alarms may not sense a fire on another level of a residence or building. For example: A first floor alarm may not activate from a second floor or basement fire.
- No type of alarm can sense every kind of fire every time. In general, alarms may not always warn you about fires caused by carelessness and safety hazards like smoking in bed, violent explosions, escaping gas, improper storage of flammable materials, overloaded electrical circuits, or arson.

## 9. Important Safety Information

*Plan Your Escape:*

- Draw a floor plan of your home.
- Show two ways out of each room.
- Discuss escape routes with everyone in your home.
- Agree on an outside meeting place in front of your home for everyone to gather after they've escaped.

*Be Prepared:*

- Teach every member of your household the sound of your Smoke and Heat Alarms.
- Have everyone in your home memorize the fire department's emergency phone number.



<b>10. Home Fire Safety Checklist</b>	Yes	No
<b>ESPECIALLY FOR THE CHILDREN</b>		
Do you make it the rule never to leave small children unattended?		
Do you and your baby-sitters know the first rule of safety in fire emergencies? Get everyone out fast, and don't go back in!		
Do you show your baby-sitter the escape routes from your home and instruct them to get everyone out first, then call the emergency number from an outside phone?		
Do your children keep a safe distance from flame and spark sources?		
<b>HEATING AND COOKING</b>		
Are furnaces, stoves and smoke pipes away from combustible walls and ceilings, and in good repair? Is your heating equipment checked annually by a serviceman?		
Are portable heaters safely located and properly maintained?		
Do you make sure there are no combustibles near any stove, heater or fireplace in the house?		
Do you have the chimney cleaned and checked regularly?		
For safety against chimney and other sparks, is roof covering fire retardant?		
<b>GOOD HOUSEKEEPING</b>		
Do you keep rubbish cleaned out?		
Is paint kept in tightly closed metal containers?		
Are flammable liquids stored in safety cans, and kept away from heat and children?		
Have you made it a rule never to use flammable liquids for cleaning clothes or starting fires?		
<b>ELECTRICITY</b>		
Are extension cords never run under rugs or hooked over nails?		
Are all cords & surge protectors in good condition?		
Are appliances checked periodically for good operating condition?		
Is the right size fuse in each socket in the fuse box? Do you use a new fuse after a fuse is blown?		
Is your TV antenna or satellite installed safely? Are they equipped with a grounded lightning arrester?		

*If you answered no to any question on this checklist, your safety precautions fall short. Take action - family action - now!*

*A reference from National Fire Protection Association Bulletin G55-1963.*

11.

**FREE LIFETIME FIRE REPLACEMENT GUARANTEE**

MasterGuard, L.P. will replace at no cost to the original owner any MasterGuard QR-50 Heat Alarm that has been damaged or destroyed by an accidental fire. Any unit(s) or part(s) thereof that are damaged or destroyed must be returned to MasterGuard, L.P. within 90 days of the fire (unless otherwise dictated by state or local laws) accompanied by a completed activation report and verification report from the local fire department to qualify for this free replacement.

**SPECIAL HALF PRICE REPLACEMENT**

MasterGuard, L.P. will replace at 50% of the then current local independent authorized dealers' retail price any MasterGuard QR-50 Heat Alarm that has been damaged or destroyed by flood, tornado, windstorm, earthquake, or other destructive act of nature. The original owner must return any unit(s) or part(s) thereof that are damaged or destroyed to MasterGuard, L.P. within 90 days of the disaster (unless otherwise dictated by state or local laws) accompanied by a completed activation report and verification in the form of a newspaper report and/or site photo to qualify for this half-price replacement. This replacement specifically excludes units that have been damaged by abuse, gross neglect, or disassembly.

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

Listing No. 7230-0477:001

CATEGORY: Heat Activated Fire Alarm

LISTEE: MasterGuard, L.P., 801 Hammond St., Suite #200,  
Coppell, TX 75019, (972) 393-1700.

DESIGN: Model QR-50 heat activated fire alarm. Refer to listee's  
data sheet for additional detailed product description and  
operational considerations.

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

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

APPROVAL: Listed as a single station heat activated fire alarm for  
residential use when complemented by a smoke detector  
installed in each separate sleeping area.

Since: October 21, 1976

Approved by: Deputy BEN HO  
Program Coordinator

MASTERGUARD, L.P.  
801 HAMMOND STREET, SUITE 200  
COPPELL, TX 75019  
PHONE (972) 393-1700 FAX (972) 393-1701

**25 YEAR LIMITED WARRANTY**  
**MASTERGUARD® QR-50**

**Single Station Heat Activated Fire Alarm**

MasterGuard, L.P. warrants "MASTERGUARD" Model QR-50 heat activated fire alarms Serial Numbers \_\_\_\_\_ to be free from defects in material and workmanship under normal use and service for 25 years from date of purchase to the original retail purchaser. No agent or representative of MasterGuard, L.P. and no independent authorized dealer or salesman has authority to increase or change the obligations of this Warranty.

The obligations under this Warranty shall be limited to replacing or repairing at the option of MasterGuard, L.P., without charge, at MasterGuard, L.P., Coppell, Texas, any part of the alarm which shall be defective in material or workmanship. Only MasterGuard, L.P. is authorized to perform warranty obligations. You have the option of returning the alarm and a full description of the claimed defect to the Independent Authorized Dealer from whom it was purchased who will forward the alarms to MasterGuard, L.P., or of sending the alarms, along with full description of the claimed defect directly to MasterGuard, L.P. at the address shown below with transportation prepaid.

This Warranty shall not apply to any alarm which shall have been installed improperly, altered, improperly repaired, or subjected to accident, neglect, abuse or misuse. This Warranty does not modify any implied warranty of the alarm to the original retail purchaser, EXCEPT THAT ANY SUCH IMPLIED WARRANTY SHALL BE LIMITED TO 25 YEARS FROM THE DATE OF DELIVERY TO THE ORIGINAL RETAIL PURCHASER. YOUR SOLE AND EXCLUSIVE REMEDY AGAINST MASTERGUARD, L.P. SHALL BE FOR THE REPAIR OR REPLACEMENT OF ANY PART OF THE ALARM WHICH SHALL BE DEFECTIVE IN MATERIAL OR WORKMANSHIP AS PROVIDED HEREIN. NO OTHER REMEDY FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY (INCLUDING, BUT NOT LIMITED TO, INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR LOST PROFITS, LOST SALES, INJURY TO PERSON OR PROPERTY, OR ANY OTHER INCIDENTAL OR CONSEQUENTIAL LOSS) SHALL BE AVAILABLE TO YOU. Some states do not allow limitations on how long an implied warranty lasts so the above limitations may not apply to you. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions do not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

No warranty, expressed or implied, is made in favor of any person other than the original retail purchaser, which as used herein, means the first consumer purchaser of the alarm from a MasterGuard, L.P. independent authorized dealer.

WARRANTED BY MASTERGUARD, L.P.  
801 HAMMOND STREET, SUITE #200, COPPELL, TX 75019  
PHONE (972) 393-1700 FAX (972) 393-1701  
www.masterguard.com

DEALERSHIP NAME \_\_\_\_\_ DATE OF SALE \_\_\_\_\_

SALES REPRESENTATIVE \_\_\_\_\_ PHONE \_\_\_\_\_

ADDRESS \_\_\_\_\_ CITY \_\_\_\_\_ STATE/PROV \_\_\_\_\_ ZIP/PC \_\_\_\_\_

CUSTOMER: KEEP THIS WARRANTY. RETURN ONLY THE ENCLOSED REGISTRATION CARD.

BACK COVER

MASTERGUARD, L.P.  
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