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# GEM-HEAT

## Wireless Heat Detector with Rate of Rise

### INSTALLATION INSTRUCTIONS

WI971B 5/06

#### DESCRIPTION

The GEM-HEAT is a high-quality 135°F (57°C) Fixed temperature detector with Rate of Rise. It is compatible with the NAPCO Express and Gemini series GEM-RECV Series supervised security receivers..

The GEM-HEAT incorporates circuitry which will transmit an alarm signal upon an alarm condition, generate an hourly supervisory test signal to the receiver and also monitor and annunciate low battery.

Coding switches are not required or used in the GEM-HEAT. Each transmitter is assigned a unique identification code number at the factory. The transmitter is powered by one 3V Lithium battery (supplied) which can power the unit for up to two years. If the battery voltage drops below normal, a low-battery report will be sent to the receiver with any status or alarm transmission. If a low-battery condition is indicated, replace the battery.

#### OPERATION

**Rate-of-Rise Feature:** A temperature increase of 15°F or more per minute will result in an alarm transmission. When the rate-of-rise element alone has been activated, the detector is self-restoring.

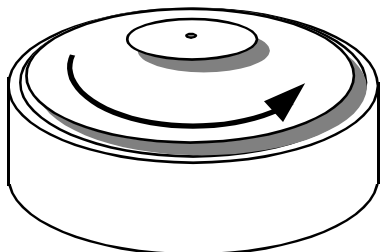
**Fixed Temperature:** If the temperature of the center disk rises to the detector's rated temperature (135°F / 57°C) an alarm transmission will result. When actuated by the fixed temperature element, the detector is non-restorable and must be replaced. The need for replacement is indicated when the center disk has fallen free. Order Chemetronics Model 601 to replace detector.

When the GEM-HEAT detects an alarm as described above, the integral transmitter will send an alarm signal to the receiver. The alarm signal will be repeated every 10 seconds thereafter as long as the alarm condition is present. A restore report will be sent when the condition clears. Supervisory status reports are sent from the GEM-SMK every hour.

### WARNING: NOT A LIFE SAFETY DEVICE - USE FOR PROPERTY PROTECTION ONLY

#### Step 1. Remove the mounting base.

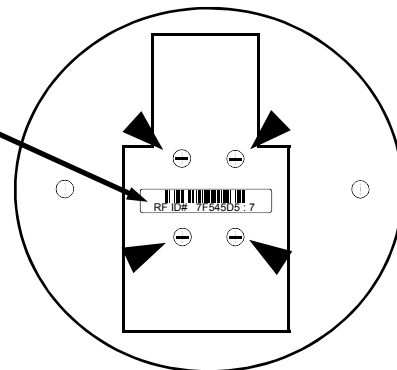
Lift the GEM-HEAT from the base by turning the heat detector counter-clockwise while holding the base stationary.



#### Step 2. Remove the circuit board

Remove the circuit board from the heat detector by removing the 4 Phillips head screws and carefully lifting the circuit board from the four mounting posts.

**NOTE:** The RF ID# which appears on the circuit board label must be recorded in order to map the transmitter into the system. (see Step 7).

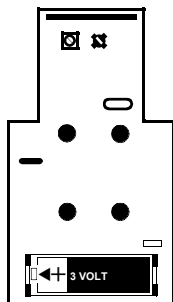


#### Step 3. Install the battery

Observing polarity, install the supplied battery. Reattach the circuit board to the mounting posts using the 4 Phillips head screws.

**NOTE:** If the Auto-Enroll technique is to be used to map the transmitter, it must be done at the point the battery is installed. (Consult the control panel installation instructions for the Auto-Enroll procedure.)

**NOTE:** Replace battery with a 3V Duracell DL123A or Varta/Power-One CR123A only. Use of another battery may present a risk of fire or explosion.

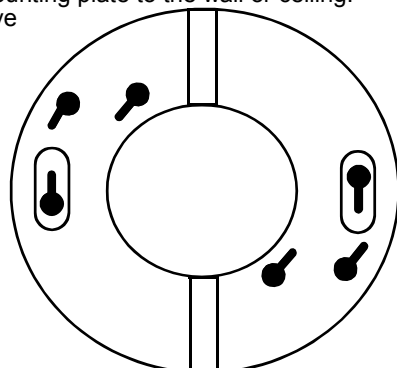


**BATTERY CAUTION:** Risk of Fire, explosion and burns. Do not recharge, disassemble, heat above 100 deg. C., or incinerate. Dispose of used batteries promptly. Keep away from children.

#### Step 4. Mounting the base to the ceiling

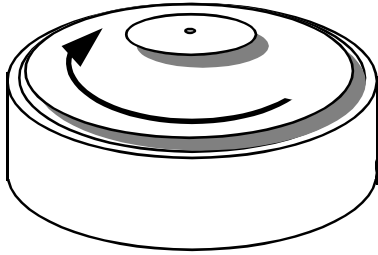
Select mounting location for detector on ceiling. Do not locate in direct path of hot or cold air flow. Remove the protective insert from the base. Use the two screws and anchors provided to attach the mounting plate to the wall or ceiling. Reinstall the the protective insert into the base.

**NOTE:** The mounting plate may be attached to a *plastic* single-gang electrical outlet box. Do not attach to metallic outlet boxes.



**Step 5. Reinstall the GEM HEAT into the mounting plate.**

Align the mounting screws with the mounting holes in the base. Push down and turn clockwise until the GEM-HEAT snaps into place.

**Step 6. Map the GEM-HEAT Transmitter**

Referring to the installation instructions for the control panel and keypad in use, enter the following:

- The zone to which the transmitter will be mapped.  
*Note: This zone must be programmed as a Fire Zone as per the control panel installation instructions.*
- The 6-digit RF identification number / 1 digit checksum number printed on the transmitter (include all numbers and/or letters and leading zeros, if any);
- The transmitter point number ("1").

**Step 7. Testing the system**

Test system with unit mounted. If the system is monitored, notify central station of impending test.

The rate-of-rise feature may be tested by a quick application of heat from any convenient source. A portable hair dryer is recommended. However, do not apply heat which exceeds the fixed temperature rating of the detector. If the fixed temperature is exceeded, the center disk of the detector will drop and the detector must be replaced.

Apply the heat until the local alarm sounds. Verify that the GEM-HEAT has triggered the correct zone and that the correct report has been transmitted to central station. Wait a few minutes and reset the fire circuit. Insure that the system returns to a normal status.

**WARNINGS**

- HEAT DETECTORS ARE NOT LIFE SAFETY DEVICES: USE FOR PROPERTY PROTECTION ONLY.
- WHERE LIFE SAFETY IS REQUIRED, SMOKE DETECTORS MUST ALSO BE USED.
- BATTERY BACK-UP: HEAT DETECTORS SHOULD BE ELECTRONICALLY SUPERVISED WITH BATTERY BACKUP AT THE PANEL.
- THE RATE-OF-RISE MECHANISM MAYBE SUBJECT TO REDUCED SENSITIVITY OVER TIME. ANNUAL TESTING OF THE RATE-OF-RISE OPERATION IS RECOMMENDED.
- REFER TO NFPA STANDARD 72 FOR APPLICATION REQUIREMENTS, TESTING AND MAINTENANCE.
- DO NOT PAINT THE GEM-HEAT.

## FCC STATEMENT

**CAUTION:** Changes or modifications not expressly approved by Napco Security Systems could void the user's authority to operate the equipment.

### RADIO AND TELEVISION INTERFERENCE

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 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 receiver antenna.
- Increase the separation between the equipment and the 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.

You may also find helpful the following booklet, prepared by the FCC: "How to Identify and Resolve Radio-TV Interference Problems." This booklet is available from the U.S. Government Printing Office, Washington D.C. 20402.

Changes and Modifications not expressly approved by the manufacturer or registrant of this equipment can void your authority to operate this equipment under Federal Communications Commissions rules.

#### **Additional Warnings:**

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

## NAPCO LIMITED WARRANTY

NAPCO SECURITY SYSTEMS, INC. (NAPCO) warrants its products to be free from manufacturing defects in materials and workmanship for thirty-six months following the date of manufacture. NAPCO will, within said period, at its option, repair or replace any product failing to operate correctly without charge to the original purchaser or user.

This warranty shall not apply to any equipment, or any part thereof, which has been repaired by others, improperly installed, improperly used, abused, altered, damaged, subjected to acts of God, or on which any serial numbers have been altered, defaced or removed. Seller will not be responsible for any dismantling or reinstallation charges.

THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. THERE IS NO EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR A WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. ADDITIONALLY, THIS WARRANTY IS IN LIEU OF ALL OTHER OBLIGATIONS OR LIABILITIES ON THE PART OF NAPCO.

Any action for breach of warranty, including but not limited to any implied warranty of merchantability, must be brought within the six months following the end of the warranty period. IN NO CASE SHALL NAPCO BE LIABLE TO ANYONE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES FOR BREACH OF THIS OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, EVEN IF THE LOSS OR DAMAGE IS CAUSED BY THE SELLER'S OWN NEGLIGENCE OR FAULT.

In case of defect, contact the security professional who installed and maintains your security system. In order to exercise the warranty, the product must be returned by the security professional, shipping costs prepaid and insured to NAPCO. After repair or replacement, NAPCO assumes the cost of returning products under warranty. NAPCO shall have no obligation under this warranty, or otherwise, if the product has been repaired by others, improperly installed, improperly used, abused, altered, damaged, subjected to accident, nuisance, flood, fire or acts of God, or on which any serial numbers have been altered, defaced or removed. NAPCO will not be responsible for any dismantling, reassembly or reinstallation charges.

This warranty contains the entire warranty. It is the sole warranty and any prior agreements or representations, whether oral or written, are either merged herein or are expressly cancelled. NAPCO neither assumes, nor authorizes any other person purporting to act on its behalf to modify, to change, or to assume for it, any other warranty or liability concerning its products.

In no event shall NAPCO be liable for an amount in excess

of NAPCO's original selling price of the product, for any loss or damage, whether direct, indirect, incidental, consequential, or otherwise arising out of any failure of the product. Seller's warranty, as hereinabove set forth, shall not be enlarged, diminished or affected by and no obligation or liability shall arise or grow out of Seller's rendering of technical advice or service in connection with Buyer's order of the goods furnished hereunder.

NAPCO RECOMMENDS THAT THE ENTIRE SYSTEM BE COMPLETELY TESTED WEEKLY.

Warning: Despite frequent testing, and due to, but not limited to, any or all of the following; criminal tampering, electrical or communications disruption, it is possible for the system to fail to perform as expected. NAPCO does not represent that the product/system may not be compromised or circumvented; or that the product or system will prevent any personal injury or property loss by burglary, robbery, fire or otherwise; nor that the product or system will in all cases provide adequate warning or protection. A properly installed and maintained alarm may only reduce risk of burglary, robbery, fire or otherwise but it is not insurance or a guarantee that these events will not occur. CONSEQUENTLY, SELLER SHALL HAVE NO LIABILITY FOR ANY PERSONAL INJURY, PROPERTY DAMAGE, OR OTHER LOSS BASED ON A CLAIM THE PRODUCT FAILED TO GIVE WARNING. Therefore, the installer should in turn advise the consumer to take any and all precautions for his or her safety including, but not limited to, fleeing the premises and calling police or fire department, in order to mitigate the possibilities of harm and/or damage.

NAPCO is not an insurer of either the property or safety of the user's family or employees, and limits its liability for any loss or damage including incidental or consequential damages to NAPCO's original selling price of the product regardless of the cause of such loss or damage.

Some states do not allow limitations on how long an implied warranty lasts or do not allow the exclusion or limitation of incidental or consequential damages, or differentiate in their treatment of limitations of liability for ordinary or gross negligence, so the above limitations or exclusions may not apply to you. This Warranty gives you specific legal rights and you may also have other rights which vary from state to state.