



WARE FIRE DEPARTMENT

Standard Operating Guideline

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**Operations:
OPS-013**

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SOG Title:
Use of Thermal Image Camera

Approved by:

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Purpose: To establish a procedure to facilitate the safest effective method of deploying the thermal image camera. To outline the limitations, operation, care and maintenance, and training of personnel for the Thermal Image Camera.

Policy: It shall be the policy of this department to utilize the thermal image camera (if available) at every structure fire or any other situation deemed necessary by the incident commander. Additional thermal image cameras shall be placed in operation as available..

Scope: This guideline is to be followed by all members. Authority to deviate from the operational considerations is within the authority of the Incident Commander.

Application:

- A thermal image camera will be carried on Ware Fire Department Engine 1, Engine 3, and Tower 1. All members shall be familiar with the location of the thermal imaging camera.
- The camera will be located between the front seats of the appropriate apparatus. It shall be the responsibility of the officer to deploy the camera at any structure fire.
- During the primary search personnel shall use the first available thermal image cameras in the search for victims. Firefighters while conducting the primary search shall still look under, around beds, sofas, and other objects where victims may be hidden to escape fire. Standard firefighting practices should be observed in the thermal imaging camera used as an additional resource.
- The second thermal image cameras will be used by additional entry crews.
- The third arriving thermal image camera shall be reserved for use by the established rapid intervention team.
- The thermal imaging camera operator shall not advance too quickly, as to leave the rest of the team lost in a zero visibility environment.

- The thermal imaging camera may be used to determine fluid level within a container, which may be useful during an incident involving a hazardous material.
- The thermal imaging camera may be used as a tool to search for lost persons in open wilderness area.
- Water, plastics and glass are all effective barriers for the thermal imaging camera and may cause a reflective image.
- The thermal imaging camera has not been determined to be intrinsically safe as an ignition source. Therefore, the camera is not to be used in a potentially explosive atmosphere.
- No operations, as outlined in this SOG shall preclude any member from using good judgment with due regard for the safety of all personnel.

Daily inspection:

- The camera shall be checked as part of the daily equipment check on the apparatus for which it is assigned.
- The camera shall be checked for cleanliness, and to assure the battery is properly charged. A charger should also include a spare battery.
- The thermal imaging camera image displayed by the camera may decrease in quality as build up on the lenses and screen during fire ground operation. A soft cotton cloth, should be used to clean the lenses and screen periodically.
- The thermal imaging camera, and it's carrying strap, shall be inspected to ensure that both the camera and strap is thoroughly dry and ready for use.
- The camera should be turned on and check for proper operation and then turned off.
- If the battery charge indicator displays more than one bar of discharge the spare battery should be placed in the unit and the discharged battery charged with the provided charging unit.
- The camera should be returned to its holder and all straps secured.
- Any malfunction or problems found with the unit should be reported to the Fire Chief or Deputy Fire Chief immediately.
- After the thermal imaging camera is used at an incident it shall be thoroughly cleaned and tested and batteries fully charged before being placed back in service.

Operation of the thermal imaging camera:

- To turn the unit on, push the large green button on the left side of the unit for the units located on Engine 1 and Tower 1. The unit on Engine 3 is turned on by pushing the red button. It will take approximately 15 seconds for the unit to warm up, self check and become operational.
- Once the camera is active, an image will be visible on the screen. Cool areas appear dark, while sources of heat appear white
- If the thermal imaging camera is not used for a period of time, but needs to remain in a state of readiness, push the yellow "sleep" button located next to the green power button on the units located on Engine 1 and Tower 1. This should be done to extend battery life. When the thermal imaging camera is in "sleep" mode. The screen will be blank. The battery power bar graph will remain visible.
- To change from "sleep" mode to active mode depress, the yellow button.
- On the left side of the display screen, a bar graph allows the operator to see the amount of energy reserve that remains in the unit's battery pack.
- If the battery power bar graph indicates that the battery has less than one quarter of its expanded capacity remaining, it shall be replaced with a fully charged battery.

- To remove the battery, flip up the two black tabs and open the hinged door.