

Buechel Fire Protection District

Fire-ground Operations

FGO-0010

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Title: Thermal Imaging Camera

Approval Date – 8-1-2000

Section	Instruction
1.	<p>Type of Camera</p> <p>FireOptic FTC 200</p> <p>Manufactured by Infrared Components Corporation</p>
2.	<p>Location of Camera</p> <p>Unit 3734 will be equipped with the Thermal Imaging Camera (TIC). The camera will be located in the cab and the officer of this unit will be responsible for putting into service as needed.</p>
3.	<p>Turning the Camera On</p> <p>To turn the camera on, push the red button located at the right below the display. It will take about 30 seconds for the camera to begin normal operation. Pushing the button again turns the camera off.</p> <p>The display will be blank for the first 20 seconds after turning the camera on, after which a picture will begin to appear. The picture will be recognizable after 30 seconds. It may take as long as two minutes for the image to fully stabilize.</p> <p>Occasionally it may be necessary to clear up the displayed image. To do this, momentarily push the Image Clear button on the left side of the panel below the display. The camera will automatically recalibrate to provide the best possible picture of the scene being viewed. During this re-calibration period, the display will blank momentarily. This re-calibration will last as long as the camera is turned on, and may be repeated as necessary.</p>
4.	<p>Care and Maintenance</p> <p>Please refer to the Operator's manual, for all information related to care and maintenance of this unit. This information will be maintained in the Training Department.</p>
5.	<p>General Information</p> <p>When an infrared camera is pointed at a hot object, it senses the heat in the form of infrared light. All objects, including humans, give off heat in the form of infrared light. Because of this, it allows you to see people even through smoke, water, steam, or darkness.</p>

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6.	<p>Infrared light will not pass through translucent glass, plastic windows, or walls. The camera will not see people on the far side of glass, plastic, or a wall, but the camera will detect that a floor, wall, or ceiling is hot, thereby suggesting that fire or hot gas is on the opposite side. In addition, infrared light will not pass through clothing, but the camera will detect clothed individuals due to infrared light coming from clothing and exposed skin.</p> <p>Acceptable Practices</p> <p>Always use the TIC in a rescue, suspected rescue, and all working fire situations.</p> <p>The TIC can be used for exterior searches for patients that have wandered away From nursing homes, lost children, victims ejected from automobile accidents, etc.</p> <p>The TIC can also be used to detect electrical “hot spots” such as overheating ballasts in fluorescent light fixtures. Frequently, electrical devices that are overheating give off a distinct odor whose source is difficult to pinpoint. By scanning fixtures, circuit breaker boxes, and other electrical devices, it may be possible to detect the source of the heat and odor and prevent a fire before it starts. As before it is not the actual temperature of a device that is the clue that something is wrong, but rather a comparison to similar devices that indicates which one is faulty.</p> <p>If the camera is exposed to high heat immediately cool the camera by removing it from the hot environment or by spraying it with water for a few seconds. You will be notified by the internal temperature sensor, if the internal temperature reaches 158° F or above; a red LED warning light will display. By removing it or cooling it, this will lower the internal temperature, cause the warning light to go off, prevent damage to the electronics, and allow proper operation to resume.</p>
7.	<p>Unacceptable Practices</p> <p>The camera is not intended to be used as a forcible entry tool.</p> <p>The camera is not intended for underwater operation, and should never be submersed intentionally.</p>

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	<p>Do not store the camera where temperatures will be higher than 150°F, or lower -20°F. Do not store the camera in direct sunlight.</p> <p>The battery box should only be removed from the camera in a dry non-explosive atmosphere. Dry the camera off prior to removing and installing the battery box.</p> <p>Do not allow battery terminals to come in contact with moisture. Wipe the camera's battery connection surface down immediately if wet.</p>