



THERMAL IMAGING FOR LIVE FIRE ASSESSMENT

A PRACTICAL GUIDE FOR AUSTRALIAN FIREFIGHTERS



WHY THERMAL IMAGING MATTERS

Thermal imaging cameras give firefighters the ability to see heat through smoke, darkness, and structural barriers. This vital technology enhances safety, supports faster decision-making, and improves outcomes during live fire operations.



PRE-ENTRY SITUATION ASSESSMENT

- Scan the environment to identify the fire's location, spread, and intensity.
- Detect concealed fire sources behind smoke, walls, or closed doors.
- Assess upper levels and void spaces for heat build-up and fire extension.



SEARCH & RESCUE OPERATIONS

- Use thermal imaging to locate trapped, unconscious, or missing persons.
- Sweep systematically – track heat signatures through smoke and obstacles.
- Communicate findings clearly to crew members for coordinated rescue.



POST-FIRE HOTSPOT CHECKS

- Scan walls, ceilings, and floors for hidden hotspots.
- Confirm the fire is fully extinguished to prevent rekindling.
- Pay extra attention to timber structures and concealed spaces where heat lingers.



KEY BENEFITS OF THERMAL IMAGING



ENHANCED SITUATIONAL AWARENESS

See the unseen and make faster, safer decisions on scene.



IMPROVED SEARCH & RESCUE

Detect human heat signatures and potentially save lives.



HOTSPOT IDENTIFICATION

Locate residual heat to stop fires from reigniting.



PRACTICAL TIPS FOR EMERGENCY RESPONDERS

- Ensure all crew are trained in thermal camera operation and image interpretation.
- Regularly calibrate and maintain devices for optimal performance.
- Use thermal imaging alongside other assessment tools and incident reports.



EMERGENCY RESPONSE COORDINATION

In any fire emergency, call **TRIPLE ZERO (000)** immediately.

FIRE & RESCUE: Lead fire suppression and live fire assessment.

POLICE: Secure the area and manage public safety.

AMBULANCE: Provide urgent medical care.

SES: Support rescue and incident assistance when required.



THE FUTURE OF FIRE ASSESSMENT

Advances in thermal imaging – including higher resolution, real-time data sharing, and AI-enhanced detection – will continue to strengthen firefighter safety and effectiveness.



**IN AN EMERGENCY
CALL TRIPLE ZERO (000)**