



Improve
Reliability



Reduce
Costs



Improve
Safety

ELECTRICAL SYSTEMS INSPECTION

TROUBLESHOOT CHASSIS ELECTRICAL QUICKLY AND EASILY WITH THERMAL IMAGING

THE CUSTOMER'S CHALLENGE

The electrical system is the central nervous system of an automobile: making sure it is operating correctly and efficiently is important at all levels of testing, validation, and manufacturing. With countless wires, connectors, switches, relays, and other electrical component and sub-systems in the network, there are multiple points for potential issues and/or failures. When a failure does occur, it can be extremely challenging to find the reason for the issue or even narrow it down to a particular area or sub-component. Most methods of troubleshooting involve circuit testers, digital multimeters, or other diagnostics systems that are either complex or require significant time to simply find the problem.

THE SOLUTIONS

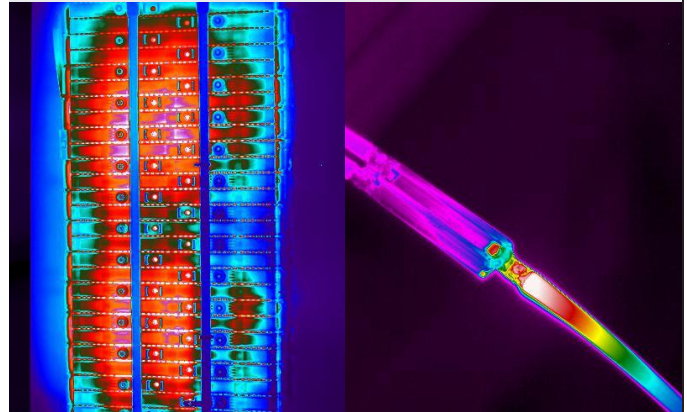
When electrical systems fail, there are three typical results:

1. Components and areas that should not get hot see an increase in temperature
2. Components that normally heat up experience an increase or decrease of temperature outside of their typical limits
3. Components and areas that should see a temperature increase under normal conditions see no heat output at all

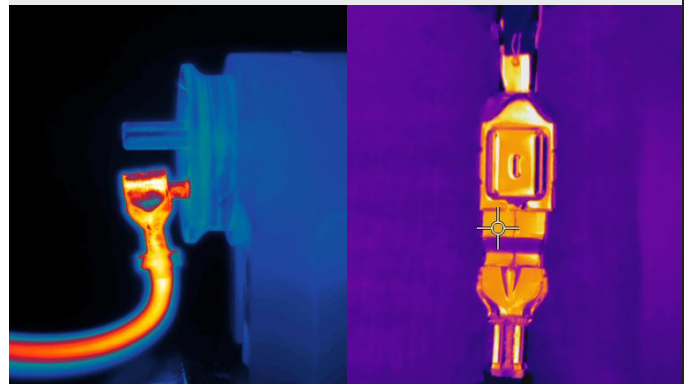
These differences in temperatures can often be easily seen with an infrared camera. Thermal imagers such as the FLIR T540 can quickly identify potential failures and pinpoint the exact location of trouble spots. Once the problem is located, technicians can perform additional diagnostics or in-depth analysis with a digital multimeter or clamp meter, such as the FLIR CM275.

THE RESULTS

Thermal imaging allows engineers, test technicians, and assembly workers to quickly and easily identify potential electrical issues and failures in automotive electrical systems. This type of visual inspection can save significant time and result in corrective actions being implemented faster than when using traditional methods.



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An infrared camera can highlight temperature differences to help users quickly identify potential failures or trouble spots.



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