



Manufacturing

Det-Tronics Adaptor Tools

Improving Routine Maintenance Through Innovation

NASA's Kennedy Space Center (KSC) has developed adapter tools to make the servicing of Det-Tronics manufactured fire detectors and combustible gas sensors more worker friendly. KSC maintains a very robust hazardous gas leak detection system which provides the capability for fire and leak detection monitoring for launch complexes, launch vehicles and ground support equipment. The Det-Tronics fire detectors and combustible gas sensors have a cap on the end of them that requires removal for maintenance and servicing. The caps are notched to allow for the edge of a large wrench to be lodged into the caps providing a worker leverage to unscrew the caps. Use of the wrench to remove the caps can be difficult and could create safety issues. When a series of multiple fire detectors and combustible gas sensors require servicing, workers can experience fatigue and soreness.

BENEFITS

- ➔ Worker Safety
- ➔ Improved Ergonomics

APPLICATIONS

- ➔ Fire Detectors
- ➔ Combustible Gas Sensors

technology solution



THE TECHNOLOGY

NASA KSC developed three different size adapters that can be used with a standard 3/8 socket drive. Any 3/8 ratchet, torque wrench, breaker bar, or other drive tool will fit the adapters. The adapters are fabricated from stainless steel for hardness and to resist corrosion. Once the cap has been broken loose with a breaker bar, you can switch to a ratchet or other tool to remove the cap. After servicing, you can re-tighten and torque the cap as needed to securely seal it.



NASA KSC Developed Tools

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NASA's Technology Transfer Program pursues the widest possible applications of agency technology to benefit US citizens. Through partnerships and licensing agreements with industry, the program ensures that NASA's investments in pioneering research find secondary uses that benefit the economy, create jobs, and improve quality of life.

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