

The Mk 122 Mod 0 Safety Switch A History of Excellence and Innovation

Background on the MK 122

The MK 122 Mod 0 is predominantly deployed with the F/A-18 Hornet tactical fighter-bomber aircraft as a safety switch. The MK 122 insures activation of the bomb's fuze system does not occur until the bomb is deployed. The MK 122 is used on the MK39 Mod 0 bomb rack for the FMU-139C/B fuze. The MK 122 works by connecting the fuze control circuits of the bomb on the aircraft to the electrical fuze circuits in the bomb. While a bomb is loaded, the coaxial cable of the switch is plugged into the receptacle of the aircraft's electronic arming unit. Upon bomb release, the lanyard pulls the lanyard pin and closes the fuze circuit. If the bomb is not released from the weapons rack, the MK122 safety switch does not receive a charge to arm. See figure 1 for an illustration of the MK 122 installed.

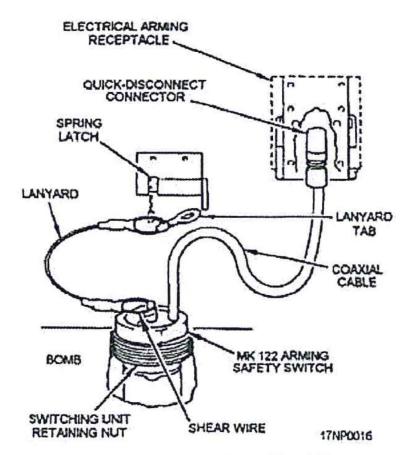


Figure 1: MK 122 Installation Diagram

Ordnance Technology Service, Inc. and the MK 122

With the prototype development of the MK 122 Mod 1, the US government was no longer set up to supply the Mod 0 and requests for supply to this configuration were left unfulfilled. This left foreign navies in need of a qualified manufacturer who could supply the Mod 0 directly.

In 2007, Ordnance Technology Service (OTS) was asked to develop the MK 122 Mod 0 for a foreign navy. From this partnership, OTS became the only manufacturer of the MK 122 Mod 0. With over 10,000 units

and \$5 million in sales later, OTS is still the sole source manufacturer of this product in the United States.

OTS produces the MK122 Mod 0 to the most recent and recognized specification and model for this product, the LD516112. The LD516112 is a modern build of the original MK 122 under NAVSEA PN 2288036, utilizing material and processes that are superior to what was available at the inception of the safety switch. The LD516112 is useable across a larger platform of fuze systems, including the M990 series, MK255, MK 257, MK344, and MK376. The new design also reduces the possibility of premature circuit actuation due to spurious electromagnetic radiation.



Figure 2: A Mk 122 Mod 0 Produced by OTS

The Future of the MK 122

As foreign navies continue to repair and upgrade their F/A-18's, and as the US armed forces continues development of the Super Hornet, there will remain a consistent need for the MK 122 Mod 0, Mod 1, and future configurations of the MK 122. It is the intention of OTS to make sure there is still a source for the MK 122 Mod 0 for foreign navies, and to help handle and manage direct support of this product.

Current Operators of the F/A-18

- US Navy & Marine Core
- Malaysia Spain

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- Switzerland

Potential Operators of the F/A-18

- Chile •
- Czech republic
- Singapore

- Finland
- Kuwait
- Hungary
- Philippines
- Thailand

France

Australia

Canada

- Austria
- Poland