

Martin-Baker Water Activated Release System

MWARS



The Martin-Baker Water Activated Release System (MWARS) is designed for use with the Seat mounted Integrated harness. In keeping with the continued drive to ensure post-ejection aircrew survivability, MWARS will automatically release the crewmember from the harness and parachute assembly on submersion in seawater. In addition, the harness and associated Quick Release Box (QRB) will continue to offer the following functionality:

- ▼ Single central harness closure
- ▼ Manual release from the harness and parachute assembly with either gloved hand.
- ▼ Integrated arm restraint

Through MWARS, Martin-Baker has combined the proven benefits of the integrated harness design together with the automatic activation technology in order to assist an unconscious, injured or exhausted aircrew to survive an emergency escape, after descent into water.



- ▼ Mounted on the negative-g strap of the integrated harness, the MWARS unit is always armed
- ▼ The unit will sense continuously, maintaining full harness restraint during the descent phase.
- ▼ An electronic circuit will activate a pyrotechnic protractor once the specified submersion conditions have been detected. The unit will fire in all conductivities of liquid over 20,000 μ Scm-1 and never fire in conductivities of liquid below 500 μ Scm-1.



On initiation, the Quick Release Box (QRB) of the integrated harness is released by mechanical action of a small piston driven by a very small contained explosive charge.

Performance

Automatic Activation:	On immersion into conductive water will fire within 2.5sec
Conductivity of Liquid:	No-fire 500 μ Scm-1, All-fire 20,000 μ Scm-1
Compatibility:	Can be fitted along with any MBA Integrated harness
Installed Life	30 years
Maintenance:	Battery test (without disassembly) every 180 days Battery life - three years Pyrotechnic protractor life - 5 years installed, 10 years total life Frequency of Seat removal unaffected
Mass:	<2.0 lbs (0.9 kg)

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