

Mk16A

Ejection Seat for Eurofighter Typhoon



Key Facts



Over 680 Mk16A Ejection Seats currently in service



5 lives saved using a Mk16A Ejection Seat



The development of the Mk16A Ejection Seat for the Eurofighter Typhoon was carried out at Martin-Baker's facilities at Denham, Chalgrove and Langford Lodge. Due to the capabilities and wide operating envelope of the aircraft, Martin-Baker was presented with a series of challenges which have had to be overcome during the development of this Seat, such as the Typhoon specific accommodation range, as well as achieving compatibility with programme specific equipment such as the BAE Systems Head Equipment (HEA), Chemical and Biological (CB) protection and Aircrew Flight Equipment (AFE).

The Mk16A Ejection Seat utilises a second-generation digital seat sequencer which incorporates a strategy of continuous sensing of external environmental parameters. Under certain speed and altitude conditions the recovery timings at which the parachute is deployed are varied in order to optimise parachute inflation loads and maximise terrain clearance.

Specification	Mk16A TYPHOON
Operating ceiling	55,000ft (16,764m)
Minimum height/speed	Zero/zero in near level attitude
Crew boarding mass range	61.0 to 133.5 kg
Crew size range	Eurofighter specific aircrew size range
Maximum Speed for ejection	600 KEAS
Parachute type	IGQ 5000 aeroconical 4-colour parachute
Parachute deployment	Cartridge initiated, electronic sequencer controlled
Drogue parachute	Yes, ribbon type
Drogue deployment	Cartridge initiated, electronic sequencer controlled
Aero-surface deployment	Yes, upper and lower. Lower aero-surface is gas operated
Neck protection	No
Harness type	Integrated Gen 4 harness with Martin-Baker QRB
Ejection seat operation type	Ejection gun and Under Seat Rocket Motor
Ejection gun / catapult	Twin tube ejection gun / catapult
Ejection initiation	Handle on seat pan initiates gas operated seat firing system
Automatic back-up unit	Yes, barostat controlled
Electronic sequencer	Yes, powered by thermal batteries
Barostatic time-release unit	No
Timers	Time delays for canopy jettison system interface
Seat adjustment	28 Vdc Up/down actuator operated
Arm restraints	Yes, Active Type II arm restraint system
Leg restraints	Passive Leg Restraint System
Oxygen supply	Auxiliary Oxygen Bottle
Personal survival pack (PSP)	Yes + automatic deployment and automatic liferaft inflation
Aircrew services	Aircrew Services Package, interfaces for: - Breathing gas - CB ventilation supply - Mic/Tel - Anti-g supply HEA Services Module Liquid suit connector assembly Auxiliary oxygen bottle
Canopy jettison System (CJS)	Yes, Martin-Baker supplied system
Canopy Severance System (CSS)	No
Inter-seat sequencing system (ISS)	Yes, Martin-Baker supplied system
Auto Eject System (AES)	No

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