

Information regarding the Lockheed F-104 Starfighter
F-104 Engine Auxiliary Inlet Doors (EAID)

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Table of contents

Table of contents	2
1. EAID (EGINE AUXILARY INLET DOORS)	3

1. EAID (ENGINE AUXILIARY INLET DOORS)

These doors are located on each inlet duct.

The doors are opened only during takeoff to provide an increased air supply to the engine for added thrust.

The only engine that needed this provision was the J79-GE-19 installed in the F-104S of the Italian Air Force.

A three position guarded switch labelled ENGINE AIR INLET DOORS is located on the left side panel, between the UHF- and Autopilot-panel.

The switch is spring-loaded from the OPEN and CLOSE position to the AUTO-CLOSE, guarded position.

The switch is used to control the hydraulic selector valve in the main landing gear wheel-well.

After takeoff and with the inlet door switch in AUTO-CLOSE, the inlet door circuit is automatically energized by a speed sensing switch and the doors will close as airspeed reaches 280 ± 10 knots.

A landing gear ground-air safety interlock switch prevents the doors from being opened in flight; however, if the AUTO-CLOSE system malfunctions, placing the switch to the CLOSE position can close the doors.

On the ground, the doors can be used for engine FOD (foreign object damage) inspection.

An INLET DOORS OPEN indicator light located adjacent to the inlet doors switch illuminates to indicate both doors are fully open and ready for flight.

After takeoff, as speed is increased to 280 ± 10 knots, the light will go out as the doors begin closing.

The engine auxiliary air inlet doors unsafe warning light and the master caution light will illuminate after takeoff when airspeed reaches 330 ± 10 knots if the doors are not closed and latched. This light alerts the pilot to reduce air speed below 340 knots IAS (Indicated Air Speed) and to close the doors by use of the manual close position of the switch.