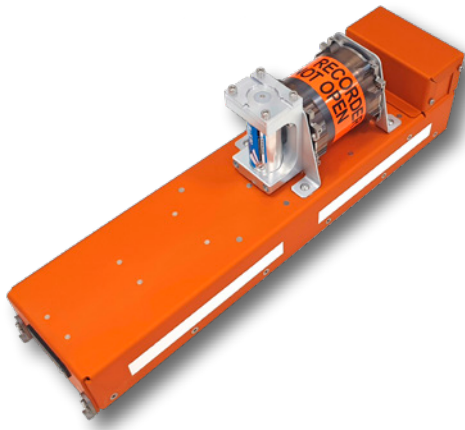


# Fortress FDR-25

Flight Data Recorder

**CURTISS-  
WRIGHT**

CURTISSWRIGHTDS.COM



## Key Features

- +25 hours flight data recording,  
+ typically 3,500+ hours @ 64wps to  
750+ hours @1,024wps
- ED-112A compliant
- Meets all current regulations
- Lightweight - 10.5 lb (4.75 kg)
- Webserver for fast and free data  
download
- Approval to (E)TSO-C124c
- 90 day Ultrasonic Locator Beacon to  
TSO-C121b
- Reliability >260,000 hrs MTBF, A<sub>1c</sub> @  
35°C (MIL-217F+)

## Applications

- Crash protected recording
- Global aeronautical distress safety  
system (GADSS) enabled
- Data storage for other applications  
including:  
+ FOQA/FDM/FDAP

## Overview

Recorders are built to meet the latest regulations and often designed with any upcoming changes in mind. To ensure they meet the requirements of new and old aircraft, some modifications may be required, or additional data formatting hardware used. Curtiss-Wright has been manufacturing recorders since 1957, introduced the world's first recorder developed to RTCA-DO178 and the first to certify a 25 hour CVR.

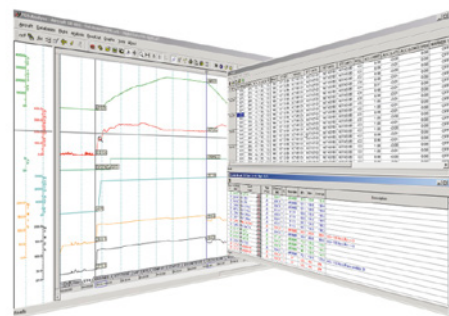
Fortress FDR-25 provides an aircraft recording solution supporting parametric flight data recording for 25 hours minimum. Fortress FDR-25 satisfies all flight recorder types as defined by EUROCAE ED-112A. Fortress FDR-25 provides leading data recording capacity with potential for 3,500 hours of data before oldest data is overwritten, with a maximum data rate of 4,096 words per second.

Fortress FDR-25 is designed in accordance with RTCA/DO-178C and RTCA/DO-254, design assurance level D. It meets all current FAA and EUROCAE ED-112A requirements.

Fortress FDR-25 offers a drop in replacement for existing 1/2 ATR long recorders, the newly designed Fortress FDR-25 as the additional capability of real-time data streaming. This allows not only for the swift and remote retrieval of flight data from the aircraft for storage or analysis but also provides Global Aeronautical Distress Safety System (GADSS) compliance.

Fortress FDR-25 also includes a 90-day underwater locator beacon (ULB) that provides improved battery safety features including a new non-restricted Class-9 lithium battery and containment of thermal runaway thus reducing the need for special handling, storage and shipping.

Fortress FDR-25 provides an integrated web based interface running across a gigabit physical Ethernet interface allowing rapid data access and recovery. Data analysis and replay is supported by the PGS suite of software that provides flight operations quality assurance (FOQA) and flight data monitoring (FDM) support in graphical and visualisation formats.



## Specifications

### Interfaces

- Flight Data Recorder (FDR)
  - + 1 ARINC 717 data input;
    - › Auto rate detection
    - › Data rates 64wps to 4,096 wps
  - + 1 FDR data monitor output
  - + 25 hours minimum capacity
    - › 210+ hours capacity @ 4,096wps
    - › 750+ hours capacity @ 1,024wps
    - › 3,500+ hours capacity @ 64wps
- Comprehensive BIT
  - + FDR maintenance discrete output
  - + FDR status discrete output
  - + OMS status via ARINC 429
- OMS via ARINC 429
- Gigabit Ethernet maintenance port

## Electrical and Mechanical

- Power
  - + 115VAC, 400 Hz
  - + 13W max
- Mass: 10.5 lb (4.75 kg) including underwater locator beacon
- Dimensions (H x L x W) within 1/2 ATR long per ARINC 404A
- Rear connector: DPX2MA-57S-00S-33-0001
- Front connector: ZDA15S-1AKN-146
- Underwater locator beacon: Beacon to TSO-C121b, battery and bracket included

## Regulatory Specifications

ARINC 404A, 573/717/747, EUROCAE MOPS ED-112A, RTCA/DO-160G, RTCA/DO-178C Level D, RTCA/DO-254 Level D

## Environmental

Adheres to ED-112A defined crash survivability tests

- Impact shock: 3,400 G for 6.5 ms
- Penetration resistance: 500 lb from 10 ft ¼ inch contact point
- Static crush: 5,000 lb for 5 mins per axis
- Shear/Tensile strength: 6,000 lb for 1 minute each axis
- Fire intensity
  - + High: 1100°C for 60 minutes
  - + Low: 260°C for 10 hours
- Fluid immersion: Immersion in aircraft fluids for 24 hr
- Water immersion: 30 day sea water
- Hydrostatic pressure: Equivalent to depth of 20,000 ft

## RTCA-DO160G Environmental Qualification

- Temperature
  - + Operating: -55°C to 70°C
  - + Non-operating: -55°C to 85°C
- Altitude: -1,000 ft to 55,000 ft
- RTCA-DO160G categories
  - + F2ABB/ER(B3,B4),H(R)EWFSFSAZ(XX)/A(CF)AR/K(CF)CCXRRMA3J3L3AX

## Optional Equipment

- Ground replay software

## Ordering Information

Please contact [Curtiss-Wright Defense Solutions](#).



Fortress FDR-25 features a 90 day ULB