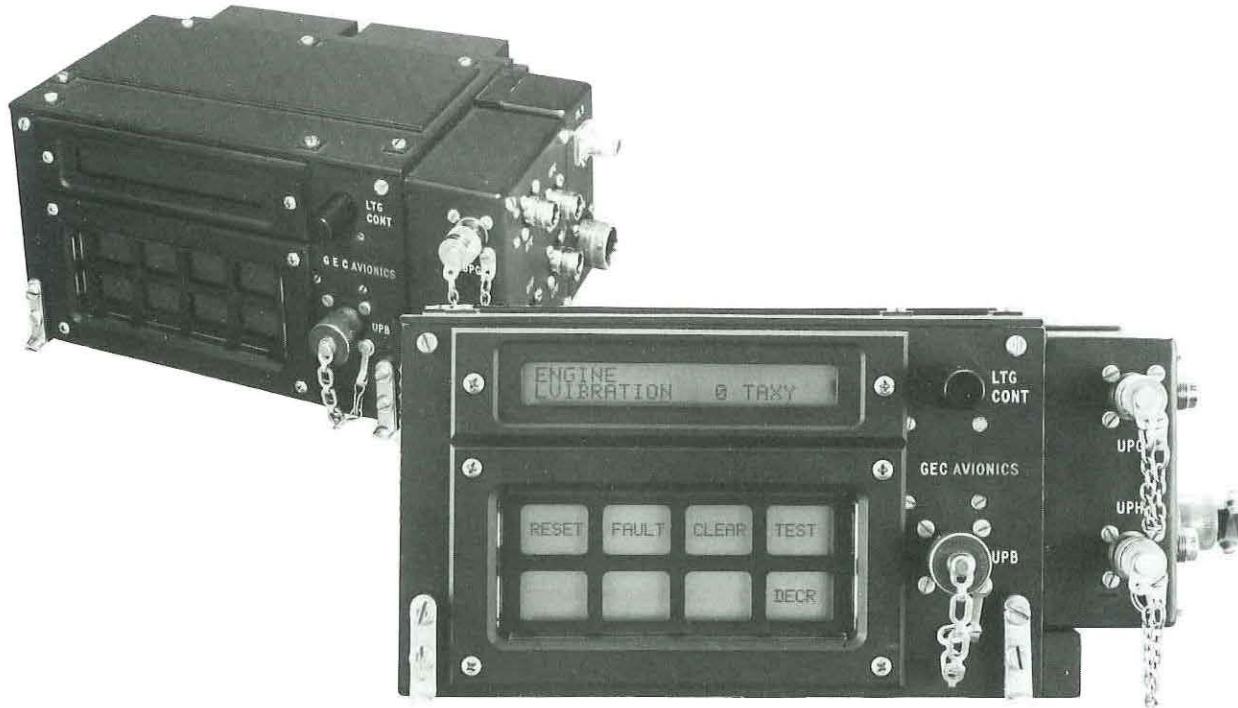


Maintenance Data Panel (MDP)



FUNCTIONS

- **REAL TIME RECORDING OF AIRCRAFT FAULTS TO BELOW LRU LEVEL IN SOLID STATE STORE**
- **DISPLAY OF AIRCRAFT CONSUMABLE QUANTITIES WITH FILL REQUESTS AND TARGET LEVELS**
- **CONTROL OF AIRCRAFT REFUELLING AND DEFUELLING TO TANK LEVEL**
- **INITIATION OF BIT IN OTHER AIRCRAFT SYSTEMS WITH MONITORING OF RESULTS AND RECORDING OF FAULTS**
- **RECORDING OF EXPIRED LIFE OF AIRCRAFT LIFED ITEMS AND DISPLAY OF EXPIRED AND TOTAL LIFE IN HOURS**

GENERAL

The Maintenance Data Panel (MDP) displays information about the operational status of an aircraft to the ground crew in simple English language format. Aircraft turn-around time is significantly reduced by providing the operator with information from aircraft systems, at a single point of access.

Information is presented on a two line 21 character alpha numeric Liquid Crystal Display, with variable brightness electro-luminescent backlight, giving good readability in all light conditions. The keyboard consists of 8 optically scanned key positions, each with a 5 character Liquid Crystal Display.

Three different Prime Modes can be selected from the initial menu, these are FAULT, REPLENISHMENT and TEST.

In the FAULT mode the operator can page through the faults logged in order of occurrence, for each aircraft system. The fault is displayed with its system name, mode code and time-in-to-mission, identifying when the fault occurred to the nearest second. The fault can be cleared when it is no longer present.

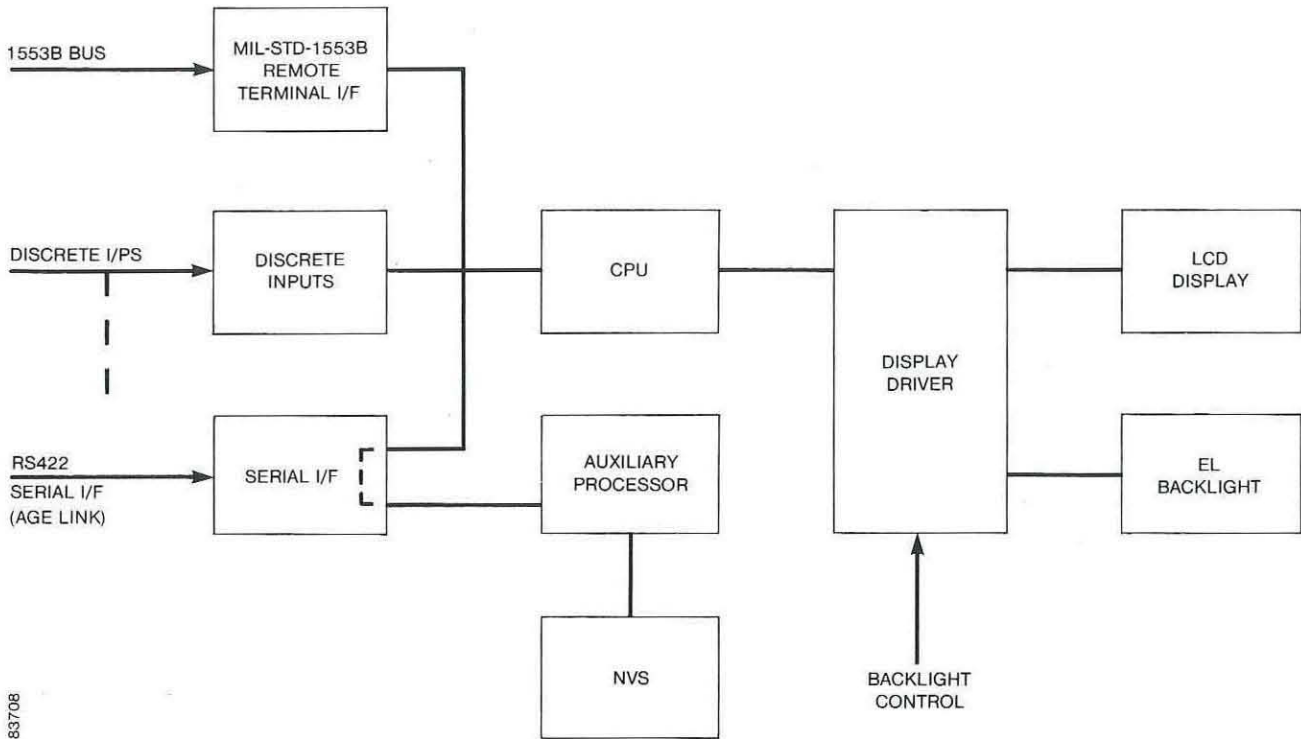
The REPLENISHMENT mode allows the operator to page through different

aircraft consumables, such as hydraulic levels, pressures, fuel quantities etc. Fill or Acceptable messages are displayed together with target quantities where appropriate. Also in this mode the operator can control aircraft refuelling and defuelling, to tank level. Lifed items are also displayed in this mode, with their expired life and limit counts. When a Lifed Item exceeds its limit a fault is logged in the fault store. Both life and limit values can be reset or altered.

In the TEST mode the operator can initiate Built In Test (BIT) in those systems that support BIT, and report the results. Typical responses are TEST IN PROGRESS, SERVICEABLE or NOT AVAILABLE. If a system responds with a SERVICEABLE message, all faults logged for that system will be automatically cleared, but if faults occur in the TEST they will be logged as TEST faults.

The MDP forms part of the USMS (Utility Systems Management System) incorporated in the Experimental Aircraft Programme (EAP) developed by British Aerospace. It has been proved to be a useful 'tool' in ground checks as well as recording in-flight defects.

It communicates with the USMS via a dual redundant MIL-STD-1553 data bus.



83708

LEADING PARTICULARS

Size:

Width 255mm
Height 120mm
Depth 170mm

Weight:

4.35 kg

Power:

28V dc (MIL-STD-704), 30W

Temperature Range:

-40°C to +70°C

Environment:

Qualified to MIL-STD-810A

EMC:

Qualified to MIL-STD-461A

MTBF:

13,500 hours (MIL-HDBK-271D)

BITE Capability:

Power-up self-test and continuous in-flight self-test

FEATURES

- Dual-redundant MIL-STD-1553B Data Bus
- Liquid Crystal Displays
- Optically Scanned Programmable LCD Keyboard
- GSE/AGE Link
- Non-Volatile Store
- Dual Processor Solution
- Continuous BIT

INTERFACES

- Dual-redundant 1553B Remote Terminal
- Dual-redundant 1553B link between Ground Test Port and 1553 Bus
- RS422 AGE Link
- Isolated 28V Discrete Inputs

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