

SHORT-POD® APU UPGRADE KIT

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OVERVIEW

AllClear Aerospace & Defense is the Original Equipment Manufacturer (OEM) for the SHORT-POD® APU (Auxiliary Power Unit) Upgrade Kit, used to modernize pre-1974 production C-130B through early C-130-H aircraft by replacing the original gas turbine compressor/air turbine motor/ATM generator with the SHORT-POD® APU.

AllClear's proprietary design and continuous improvement of this distinctive upgrade kit has enabled us to deliver more than 78 SHORT-POD® APU Upgrade Kits to global customers.

SOLUTION

The SHORT-POD® APU Upgrade Kit is a Lockheed Martin approved solution that provides C-130 operators with increased reliability and reduced maintenance costs.



BACKGROUND

The original GTC85 on C-130 B-H aircraft delivered prior to 1974 has a very low mean time between unscheduled repairs (MTBUR), as well as a marginal capability to produce sufficient pneumatic power to reliably start the T56 engines. As the GTC85-71A wears through normal use, its pneumatic power production degrades and ultimately reaches a point where it can no longer start the engines independent of ground power carts. Additionally, the GTC85-71A is unable to power either one of the aircraft Environmental Control Systems during normal operations. Finally, the obsolete GTC85-71A is operable on the ground only, which means that its power production is not available in flight, even in emergencies.

KIT INCLUDES

- **SHORT-POD® APU**
- **CONTROL PANEL**
- **IMPROVED COWLING**
- **HARDWARE**
- **TECHNICAL/IPC/FLIGHT MANUAL UPDATES**
- **ENGINEERING SUPPORT FOR INSTALLATION**
- **GROUND AND FLIGHT CREW TRAINING**



PERFORMANCE COMPARISON

	GTC	SHORT-POD® APU
ENGINE	GTC85-71A	GTCP85-180L
GENERATOR	20/30 KVA	40 KVA
BLEED AIR	90 PPM	150 PPM
KIT WEIGHT	<500 LBS	<500 LBS
MTBUR	450 HOURS	3,350 HOURS
POWERS	ESSENTIAL AC BUS AND ALL DC BUSSES	ESSENTIAL AND MAIN AC BUSSES AND ALL DC BUSSES

UPGRADE BENEFITS

- Improved reliability
- Greater MTBUR
- Lower cost of ownership
- Greater mission autonomy due to secure engine starts
- ECS operation on the ground without main engines or GCS support
- No major aircraft modification needed
- 25 days installation time

Honeywell



WHY UPGRADE

- Approved, licensed & hologrammed by Lockheed Martin Global Sustainment Services
- Improved ground ECS cooling capacity
- Increased operational capability & mission readiness reduce maintenance downtime
- Increased bleed air availability, which reduces the possibility of hot or stalled starts
- APU direct drive generator (same as engine driven) increased available electrical power while decreasing electrical power fluctuations
- APU high output air provides quicker engine starts, reducing starter and turbine wear and tear
- Certified for in-flight operation of up to 18,000 ft
- 50% less expensive than the long pod installation

