



SALIENT FEATURES

1. All Components pre-tested, pre-calibrated and burned-in for a minimum of 24 hours.
2. Capable of operating in diverse climatic extremes.
3. Fitted with rugged Ni-Cd pocket plate batteries capable of withstanding mechanical abuse, over-charging and even short-circuit. Most suitable for high rate discharge applications.
4. Solid state design manufactured to rigorous standards.
5. Easy access to all sub-assemblies & batteries.
6. Allows mechanical stowage of the load cables and connector when not in use.
7. With ball-bearing turn-table in the front for easy manoeuvrability.
8. Saves expensive internal aircraft battery and prolongs its life.
9. Easily air-transportable due to its compact size and light weight.
10. Available in customer's colour choice.
11. Suitable also for aircrafts requiring 56V. starting voltage.
12. Unit warranted for 12 months and Ni-Cd batteries for 36 months.

Servel group of companies has been engaged since 1975 in design, manufacture and marketing of electronic equipment, systems, wires & cables for Industry, Defence, Computer and other applications. The group was started and is managed by engineer-entrepreneurs who constantly strive for excellence. Servel products therefore, are of high reliability to serve users well. Servel has an efficient infrastructure to provide, if at all required, prompt after-sale-service.



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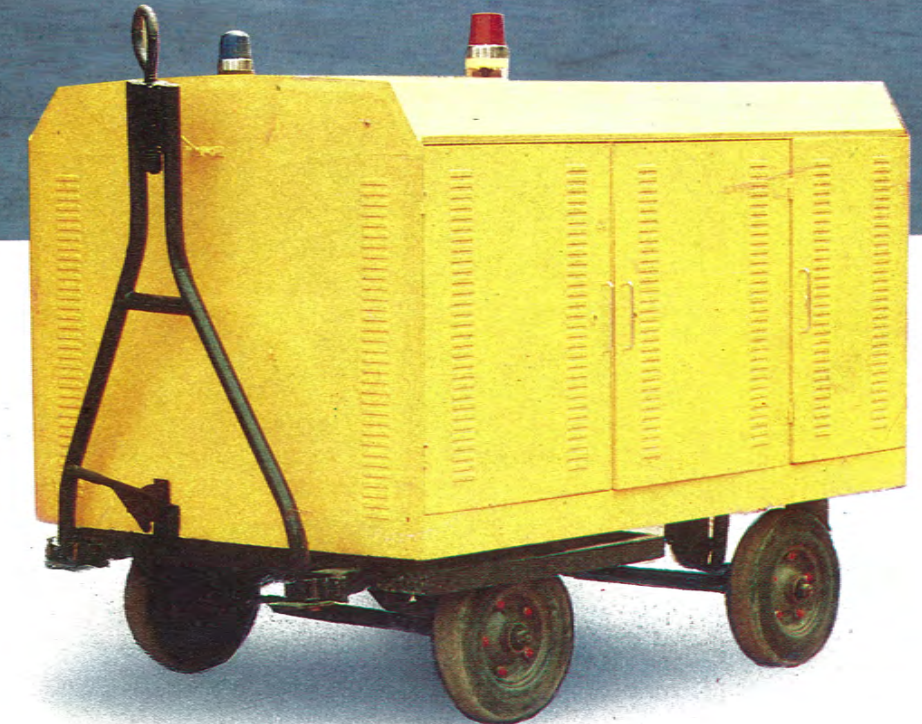


GROUND POWER UNIT FOR AIRCRAFTS



Ground Power Unit for

- Systems-check
- Trouble-free & smooth engine starts





GROUND POWER UNIT FOR AIRCRAFTS

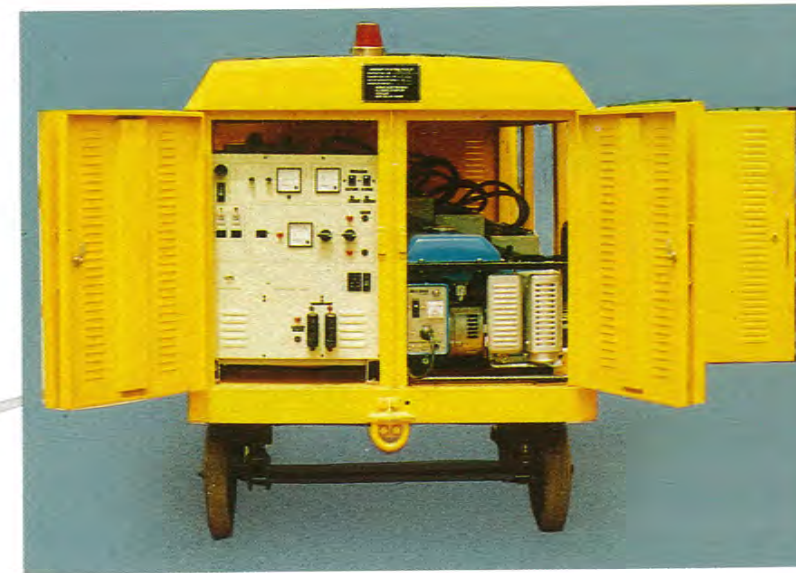
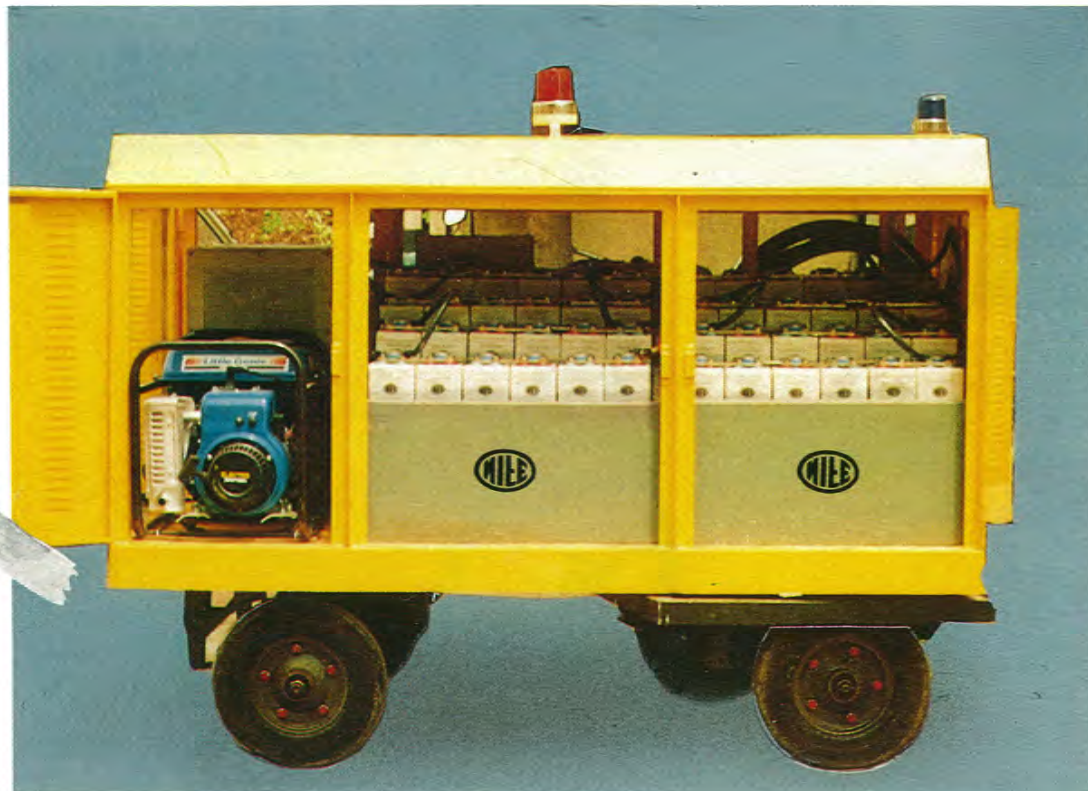
Serval Ground Power Unit (GPU) has been developed after exhaustive testing and research. Serval GPU is very versatile and most cost efficient for engine starts and to carryout systems-check of an aircraft at the gate, remote parking sites and maintenance hangars. It supplies DC power to the aircraft from Nickel Cadmium pocket-plate battery banks. Ruggedly constructed the towable trolley is light weight and has easy manoeuvrability for mobile use. It can be easily towed on the tarmac by just two persons. For faster movements from hangar to the aircraft, it can be towed smoothly by a tractor or a jeep. A fully swivelling turn table with tow bar has been provided for wide and free turning of the trolley. The unit can be easily air-transported, even by a helicopter.

To withstand shocks and vibrations during movement and air transportation of the GPU, spring suspension has been provided along with 4 heavy duty solid rubber tyres mounted on ball-bearings. The GPU has an effective hand-break arrangement so as to restrict its movement when

stationed and in use. Separate indicators are provided to show the movement of the GPU and its proper operating condition.

To make GPU self sufficient, a state of the art CCCV (constant current constant voltage) battery charger with over-voltage, reverse-polarity and short-circuit protection has been installed to charge the battery from the mains supply. The battery can also be charged, in the absence of mains supply, from a kerosene-operated generator provided on board of the GPU. An adjustable timer (0-16 hours) has been provided to charge the battery for the required duration. The charger automatically switches off after the expiry of the set time.

Serval GPU is fully covered to protect it from rain and dust. It has detachable doors with proper ventilation to facilitate cooling and easy access to the major sub-assemblies. Virtually no maintenance. The technical design and built-in features make Serval GPU easy to operate and superior.



SPECIFICATIONS

1. DC Power Output : 28.8V 57.6V
2. Engine starts : 15 or more, with 1500 amps. of starting current for 10 sec. in each starting cycle (with fully charged batteries)
3. Trolley Turn-Table : Free turning 65 degrees min. on either side from its normal central position.
4. Battery : 2 Ni-Cd pocket-plate banks of 28.8V each of 150AH.
5. Battery Charger : Constant current constant voltage type with automatic timer. Fully solid state.

AC Input Voltage.

190 to 260V, 50Hz, single phase

Charging Current

Constant current charging system adjustable continuously from 0 to 50 amps. when working with the mains supply. The current is maintained constant within $\pm 2.5\%$ of the set value. When working with the generator supply, charging current is 20 amps. constant.

Panel Meters

Provided to display "charging current" and "voltage" of battery banks.

Automatic Timer

A timer of 0 to 16 hours duration is provided. The batteries under charge shall automatically get disconnected after completion of the set time duration. The timer has an ON/OFF switch. When the timer is in OFF position, the batteries are charged at the current rate selected continuously.

Protection Circuits

Provided with short-circuit,

6. Generator : Output 225 to 240 V AC, 50 Hz, 1.5 KVA • Kerosene-run and petrol start-engine • Fitted with fuel tank for 7 hours continuously running capacity. • Fuel level indicator provided.
7. Indicators : • 'Towing' lamp provided at the centre roof top of the GPU with ON/OFF switch in the front. • 'In operation' lamp at the front roof top of the GPU is being used for engine-starting or systems-check of the aircraft.
8. Others : • Fitted with a hand-brake. • Towing arm provided with stopper to prevent it from falling on the ground. • Towing eye fixed at the rear for forming a trolley-train during movement.
9. Dimensions (LxWxH) : 2mx1.02mx1.5m approx.
10. Weight : Less than 990 Kgs.

over load, reverse current protection circuits with proper fuses on the AC and DC sides.

Switches

• Power ON/OFF • Power selector for mains and generator supply.

Indicators

• Mains ON • Generator ON • Battery charger ON • Charging ON.

Miscellaneous

• Inspection lamp with ON/OFF switch provided to illuminate the charger panel and the surroundings. • Spare power socket with an ON/OFF switch given on the front panel.

(The specifications and features may undergo change due to continuous R&D and innovations)