



## PURPOSE OF THE 6 PIN GROUND POWER UNIT CONNECTOR IN AIRCRAFT

### **Aircraftplugs® 6 PIN 400 HZ Technical instructions**

The purpose of the 6 pin ground power unit connector in aircraft, why ?

When the external power connector plug is plugged in the aircraft socket, the power-on control circuit senses whether a dc signal from the aircraft is present. If it is not present after a fixed time period, the external power source is automatically shut down. This action is taken to avoid continuing to supply power to an aircraft if a power connection is not properly made. A service technician can then go and correct the power connector condition.

In the presently available power-on control circuits employed in aircraft external power source connectors, an external power source is immediately activated by a push-button or switch and remains activated for at least four seconds. During this four second period, the connector plug is live with high power whether or not it is connected to the aircraft. This can be a cause of damage to the aircraft internal power supply if any connection pin is open, particularly if the connector neutral is open. On some occasions, it has been reported that an external power connector plug either fell out of the aircraft socket on to the ground or was not put in place at all. If the connector plug should land in a puddle of fluid, an external source start-up could be hazardous indeed.

The power-on control circuit and the 400 Hz power source are connected to the aircraft electric power system through connector 6 terminal pins A, B, C, D, E and F. Pin D serves as the neutral for both power and signal flow.

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