



OPERATING INSTRUCTIONS

APU28v/25A, APU28v/50A, & APU14v/25A Auxiliary Power Unit & Battery Charger

INTRODUCTION:

Designed for aircraft. Plugs into APU receptacle to provide filtered bus power for avionics, and flight controls. Also incorporates a battery charge feature activated with battery switch in cockpit.

INITIAL INSTALLATION:

Before making AC connections, refer to the AC requirements labeled on the charger ID tag. If your charger is not equipped with an AC plug, *for example, a 220 volt charger*, have a qualified electrician install one.

⚠ CAUTION: To reduce the risk of fire, use this charger only on circuits provided with a maximum of 20 ampere branch circuit protection (circuit breaker or fuse), In accordance with the National Electric Code, ANSI/NFPA 70, and all local codes and ordinances.

GROUNDING INSTRUCTIONS:

This battery charger must be grounded to reduce the risk of electric shock. If the charger is equipped with a grounding type plug, it must be plugged into a nominal 115 volt, 60 Hertz circuit. If the charger is supplied with no plug, have a qualified service person install one.

⚠ WARNING: Improper connection of the equipment grounding conductor can result in a risk of an electric shock. **DO NOT USE THIS CHARGER ON A TWO POLE UNGROUNDED OUTLET OR ATTEMPT TO BREAK OFF THE GROUND PRONG FOR USE ON A RECEPTACLE OR EXTENSION CORD NOT HAVING A GROUND.**

The use of an extension cord with this charger should be avoided. The use of an improper extension cord could result in a risk of a fire or electric shock. If an extension cord must be used, make sure it is in good condition. Use a three conductor cord no smaller than the cord on the APU itself, and keep it as short as possible. Locate all cords so that they will not be stepped on, tripped over, or otherwise subjected to damage or stress.

Do not operate this unit if it shows any signs of physical damage.

⚠ WARNING: Make sure the DC output leads, terminals or connector are all in good working condition.

DO NOT USE THIS UNIT IF:

The DC output connector, *(if equipped)* is loose or does not make good contact; Is cracked or broken; The leads are cut or have exposed wires; The DC output leads or connector feel hot when used.

Using this unit with any of the above symptoms could result in a fire, property damage, or personal injury. Have a qualified service person make the necessary repairs. Repairs should not be made by people who are not qualified.

NORMAL OPERATION POWER SUPPLY:

- 1). Make sure main power switch is off. Be sure the unit matches the system voltage of aircraft. Plug connector into APU receptacle.
- 2). Plug the unit into AC power. 117 volts, or 230 if designed for it.
- 3). Place selector switch in power supply position.
- 4). Turn ON aircraft master switch.
- 5). Flip APU power switch ON. The voltmeter will show an output of 27-28 volts. If the ammeter also shows current flow, and nothing on the aircraft is on, this current is flowing into the battery. As loads are placed on the bus, amps will increase, and voltage will decrease. **NOTE:** The voltmeter may read as much as 1 volt higher than actual buss voltage when the unit is fully loaded, as the load is reduced, the meter will read more accurate. Current is limited to 25 or 50 amps, depending on model.
- 6). If there is no reading on the ammeter, slide the **third pin power switch** to the other position.
- 7). To discontinue, flip the APU power switch OFF first, then unplug the AC power cord and disconnect plug from APU receptacle.

NORMAL OPERATION BATTERY CHARGER:

First it should be noted, that on most aircraft it is not possible to isolate the battery from the system bus, and charge it independently.

- 1). Follow steps 1 And 2 above, then place selector switch in battery charge position. If no voltage registers on the meter, and if your aircraft has a battery switch, turn it on. If voltage still does not register, then the battery cannot be separated from the system bus and you will charge the battery as described in paragraph 5 above, just make sure everything is off, so that battery can become charged. If however, you get a voltage reading in the battery charge position, then you are able to charge the battery independently.
- 2). As the battery charges, amps will decrease as voltage increases, battery is fully charged near 14 or 28 volts, depending on model. Current should be one amp and lower. Charger can be left connected indefinitely without damage to battery.
- 5). To discontinue, flip the APU power switch OFF first, then unplug the AC power cord and disconnect plug from APU receptacle.

 **WARNING:** Do not disconnect the DC plug when the unit is on. The resulting arcing could cause burning of the plug and receptacle contacts.

 **WARNING:** Failure to unplug AC and DC power before moving or driving equipment will result in damage to cords, plugs and receptacles.

TROUBLE SHOOTING:



DANGER: To reduce the risk of electric shock, always disconnect both the AC power supply cord and the output leads or connector before attempting any maintenance cleaning.

1). **NOTHING HAPPENS WHEN MAIN POWER IS TURNED ON.**

Check connections. Check AC fuse, Check DC circuit breaker. Make sure you are plugged into a live AC circuit. If in power supply position, is your Master switch ON? If in battery charge position, is battery switch on? Slide “**third pin power**” switch to other position.

2). **CAN'T CHARGE BATTERY THROUGH APU RECEPTICAL.**

Turn all accessories off and use the power supply position.

3). **AC LINE FUSE OR CIRCUIT BREAKER BLOWS CONTINUALLY:**

The charger is shorted internally.

QUICK CHARGE APU Battery Chargers “LIMITED WARRANTY”

Quick Charge Corporation warrants the APU line of chargers for three (3) years from the date of purchase. After the warranty period, chargers returned to the factory for repair will be charged a minimum rate of \$25.00. Charger will be returned, freight and repair charges, C.O.D. unless other arrangements have been made. This warranty covers all defects in manufacture and performance, provided the unit is operated in compliance with manufacture's operating instructions. For repairs to be made at the Quick Charge factory, a charger and/or component(s) should be sent, freight prepaid to Quick Charge at:

Quick Charge Corp.
1032 S.W. 22nd St.
Oklahoma City, OK. 73109

Quick Charge, will at it's option, repair or replace the charger or component in question. The repaired item will then be returned, freight prepaid by Quick Charge. This warranty is void if the charger or component have been altered, changed, or repaired by anyone not authorized by Quick Charge, or if the charger or component, have been subjected to misuse, negligence, or harsh environmental conditions. (Except those chargers designed for such conditions) If returning the charger to the factory is not practical, replacement parts may be shipped to the customer for field repair at no charge. On parts such as circuit boards, the customer will be required to return the board suspected to be defective to Quick Charge, freight prepaid. If such defective parts are not returned, the customer will be invoiced for the repair parts. Field repairs are made at the user's own risk. “Authorization” by Quick Charge to repair refers to maintaining the warranty only. Quick Charge assumes no responsibility or liability for field servicing, and shall not be responsible for incurred travel or labor charges. Quick Charge corporation shall not in any event be liable for the cost of any special, indirect or consequential damages to anyone, product or thing. This warranty is in lieu of all other warranties expressed or implied. Quick Charge neither assumes nor authorizes any representative or other person to assume for us any liability in connection with the sale of this product.