TELEDYNE TDMC DUAL MODE
12 and 24 VDC Aircraft Battery Charger

INSTRUCTIONS

WARNING: Turn the charger OFF whenever making or breaking battery connections.

WARNING: The charger's internal fuse will open if battery polarity is reversed.

CAUTION: Always verify the voltage of the battery to be charged before selecting the charging mode. If the 24 V mode is selected for use with a 12 V battery, the charger could charge indefinitely at 4 Amps causing potentially serious damage.

NOTE: Whenever input power is interrupted, the battery charger automatically resets. Repeat steps 2 and 3 (under "operation") to continue.

NOTE: The Teledyne aircraft battery charger is designed to provide a float charge to the battery. For 12 volt applications, float is 14.4 VDC; for 24 volts, it is 28.8 VDC.

CONFIGURATION

115 (120) VAC 60 Hz / 230 (240) VAC 50 Hz Voltage Selection

1. Make sure the power cord is unplugged.
2. Locate the voltage selection switch on the bottom of the charger.
3. Insert a small flat blade screw driver into the slot and select the desired voltage.

CAUTION: Do not apply power to the unit until the proper voltage is selected.

Line Cord Modification for 230 (240) VAC 50 Hz Operation

1. Make sure the power cord is unplugged.
2. Cut the plug end off of the power cord provided.
3. Install the appropriate plug: Brown (Hot) and Blue (Neutral) to 230 (240) VAC; Green/Yellow to ground.

OPERATION

1. Battery Connection: Determine the battery's voltage and connect the charger's clip leads to the battery terminals: RED to positive (+); BLACK to negative (-).

2. Constant Voltage Mode: Turn the charger ON by pressing the "Voltage Select" ON switch once. The 12 volt LED will light to indicate 12 volt operation. For 24 volt operation, press the ON switch again to light the 24 volt LED. The "Output Current" display will indicate the current flow into the battery in 0.5 Amp increments. Adjust the "Current Adjust" knob to select the maximum initial charge current. The battery will charge at the current (Amps) indicated by the display until the desired voltage (12 or 24 VDC) is reached. The current will then decrease to a float charge which will maintain the voltage at a constant level.

3. Constant Current Mode: Once the unit is ON and the proper voltage has been selected, press and hold the "Constant Current Charge Timer" SET switch. The display will count upwards in 0.1hr increments to 24 hours. The SET switch can also be pressed and released quickly to speed up the process. Select the number of hours desired for Constant Current Charge. As soon as a time is displayed, the red LED above the SET switch will light to indicate Constant Current Charge mode. To cancel, press the "Voltage Select" OFF switch; or advance the clock to "0.0".

When in Constant Current Charge mode, adjust the "Current Adjust" knob to select the desired charge current. The "Output Current" display will indicate the output current in 0.5 Amp increments. Once the Constant Current Charge clock times out, the charger will revert to a float charge at the selected voltage (12 or 24 VDC).
Important Safety Precautions:
* Use extreme caution whenever handling or charging batteries.
* Wear eye protection whenever working with batteries.
* Turn the charger OFF whenever making or breaking a battery connection.
* Never charge a battery that appears to be cracked, swollen or leaking.
* Allow adequate airflow around the unit during charging. Do not block air vents.
* Always replace the internal output fuse with the correct type and rating.
* Do not expose the battery charger to moisture; i.e., rain.

SPECIFICATIONS

Input Voltage 115 (120) VAC 60 Hz, or
230 (240) VAC 50 Hz (selectable)
Current 2 Amps max.
Output Voltage 14.4 VDC or 28.8 VDC ± 2%
Current 0-4 Amps
Operating Temperature +20 to +120°F (-6 to +49°C)
Circuit Protection Reverse polarity and short-circuit protected
5 Amp Type 3 AG Fast Blow output fuse (internal)
3 Amp AC input circuit breaker (front panel)
Construction Aluminum with polycarbonate front panel overlay
Finish Reflex Blue Paint
Dimensions 6.25" W x 12" H x 5" D
(158mm W x 304mm H x 127mm D)
Weight 9 lbs. (4 kg)

MAINTENANCE
Internal Fuse Replacement
1. Disconnect battery and unplug the power cord.
2. Remove the (4) screws located in the rubber feet on the back of the charger.
3. Carefully separate the case.
4. Locate the fuse on the back side of the circuit board (near the output connections).
5. Replace the fuse with a 5 Amp Type 3AG Fast Blow.
6. Reassemble the charger and verify proper operation.
WARRANTY

The TDMC Dual Mode Battery Charger is warranted to perform to Teledyne specifications and against defects in workmanship and material for 18 months from date of manufacture. Units which fail will be returned, freight paid, to the following address and will be replaced, repaired or adjusted as required.

Alpha Technologies, Inc.
3767 Alpha Way
Bellingham, WA 98226
(360) 647-2360

Abuse, modification or the use of units in a manner for which they were not designed voids all warranties.

This constitutes the entire agreement between Teledyne Battery Products and the Purchaser, and there are no other agreements or understandings regarding the subject matter thereof.