

MasterFiller

Water Filler for Nickel-Cadmium Batteries

(preliminary—0.7—25 February 2010)



- ◆ Designed to simplify the task of water leveling of Nickel-Cadmium cells
- ◆ Automatic recording of water delivered to each cell
- ◆ Electrical water level sensing (no pumps to wear out)
- ◆ Four pre-measured Dispense Volumes
- ◆ Output for interfacing to the BTAS16 Computerized Battery Test System
- ◆ Output for optional Ticket Printer
- ◆ Keypad Inputs and LCD readout
- ◆ 12VDC power
- ◆ Optional internal battery

HIGHLIGHTS:

- The *MasterFiller* is an instrument designed to deliver measured quantities of distilled water as required in the service of Aircraft Nickel-Cadmium batteries.
- The *MasterFiller* consists of a microprocessor controlled pump with a level sensing probe, a keypad and display and an external 12VDC power supply (or optional battery).
- The *MasterFiller* is part of a system comprising Intelligent Charger-Analyzers and Software for Battery Data Acquisition and Analysis, designed to improve the accuracy and efficiency of the process of testing batteries for airworthiness certification.

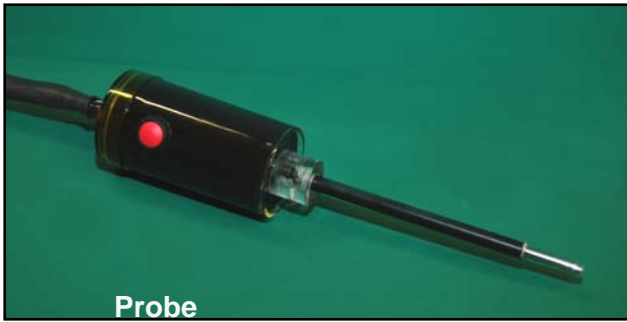
WATER LEVELING REQUIREMENTS:

The task of water leveling requires much more than just injecting water to a specified level.

It is also necessary to know how much water was injected because water consumption, being a measure of the overcharge activity of the battery, will determine the required test interval for proper battery performance and longer life.

Failure to properly monitor and service the electrolyte level can result in in-flight battery overheating, shortened battery life and catastrophic thermal runaway.

The *MasterFiller* provides you with a simple and accurate method to fill the cells to the required level while recording the information for subsequent output to a ticket printer or to the BTAS16 System.



SPECIFICATIONS

1. ACCURACY:
 - ± 1 cc (correctable)
2. REPEATABILITY:
 - ± 1 cc
3. MODES:
 - FILL: Automatic cell filling with level sensing and water volume recording.
 - DISPENSE: water dispensing with level sensing but without data recording.
 - PRIME: Function used to fill the input and output tubing and to eliminate bubbles.
 - CALIBRATION: Function used to calibrate the pump against an external 50cc vessel
 - PREMEASURED DISPENSE: Delivery of 5cc, 10cc, 20cc and 50cc volumes (with level sensing).
 - VIEW: View of recorded information on water dispensed to each of the cells.
 - SEND: Used to send data to the BTAS16
 - PRINT: Used to print recorded information on an external, optional ticket printer.
5. CONTROLS:
 - Keypad for the MasterFiller functions
 - ON-OFF switch (Rear Panel)
 - Pump OFF switch (Rear Panel)
 - Delivery Enable Pushbutton (probe handle)
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6. DISPLAY:
 - LCD, 2 lines x 16 characters
 - Level Sensed LED (at the probe handle).
7. STATUS INDICATORS:
 - LCD messages
 - Beeper
8. CONTROL:
 - Microprocessor based
9. DATA OUTPUT:
 - LCD Readout
 - Ticket Printer (serial—RS232)
 - BTAS16
9. LINE VOLTAGE:
 - Universal 12VDC Adapter (or battery charger), 100-250V, 50-60Hz
10. AMBIENT:
 - $+5^{\circ}\text{C}$ to $+35^{\circ}\text{C}$
11. DIMENSIONS:
 - Case: 210mm (8.27in) wide, 150mm (5.91in) high, 179mm (7.05in) deep
 - Probe: 250mm (9.84in) overall length
12. WEIGHT:
 - 2.1Kg (4.6lb) with Power Supply and Probe
13. WARRANTY:
 - One year parts and labor.
14. PART NUMBER:
 - 9899050001

Price and Specifications subject to change without notice

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