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Service Bulletin

MODEL(S)   TB17
PART NUMBER(S)   6430017-( )
DESCRIPTION   Advanced Lithium-ion Battery
TOPIC   Modification ("MOD") 1
PURPOSE   Minor miscellaneous operational improvements
RELEASE DATE   August 27, 2015

APPLICABILITY

This Service Bulletin is applicable to the model TB17 Advanced Lithium-ion Battery, part numbers 6430017-( ) manufactured by Mid-Continent Instrument Co., Inc. (dba True Blue Power and Mid-Continent Instruments and Avionics). These updates are to be performed ONLY by authorized personnel per the instructions as listed in this Service Bulletin. Units with this modification are available for sale from the manufacturer.

PURPOSE

This modification to the TB17 series includes hardware changes which enhance and optimize current functionality to provide better and more convenient operational characteristics.

EFFECTIVITY: Voluntary

Existing TB17 product previously produced and fielded cannot be upgraded with these MOD 1 changes as described without refurbishment from the manufacturer.

Following the release date of this Service Bulletin, all TB17 units marked as MOD 1 and newly manufactured by True Blue Power (Mid-Continent Instruments and Avionics) shall include the changes as described herewith.

DESCRIPTION

The following list describes the changes incorporated in this TB17 modification.

1. Under-voltage protection indication
    The over-discharge/under-voltage protection indication will now be reported as a FAULT signal (pulsed signal from the communication connector) as opposed to a FAIL signal (steady signal from the communication connector). By definition, a FAULT indication is potentially recoverable, whereas a FAIL indication is not recoverable.

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DESCRIPTION (continued)

2. Over-voltage protection indication

   The over-charge/over-voltage protection indication will now be reported as a FAULT signal (pulsed signal from the communication connector) as opposed to a FAIL signal (steady signal from the communication connector). By definition, a FAULT indication is potentially recoverable, whereas a FAIL indication is not recoverable.

3. Heater thresholds

   When the TB17 is active, the heater will turn on when the battery senses an internal temperature of 10°C or less. When the battery senses an internal temperature of 15°C or more, the heater will turn off.

4. Heater power

   The heater power has been upgraded to allow for faster pre-heat times in cold environments.

5. Under-voltage recovery

   After entering the under-voltage protection state, the TB17 can be re-activated by applying a charging voltage greater than 22.4VDC.

6. Power availability

   The TB17 has been improved to provide power after approximately 25 milliseconds when transitioning from sleep mode to active mode.

7. Sleep Mode

   The TB17 will enter sleep mode after approximately 4.5 hours of inactivity. Inactivity is defined as no charging (applied voltage greater than 280 millivolts above battery voltage) or discharging (applied load greater than 10mA).

8. Identification

   "MOD 1" will be marked out on the TB17 nameplate.

ESTIMATED MANPOWER

None. Not available for field update.

APPROVALS

None required

WEIGHT AND BALANCE

No change

ELECTRICAL LOAD DATA

No change

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CERTIFICATION

This Service Bulletin represents a minor change and therefore does not affect the previously approved Technical Standard Order Authorization (TSOA) of the TB17.

OTHER PUBLICATIONS AFFECTED

True Blue Power Installation Manual and Operating Instructions, part number 9018047, Revision C or later, includes information associated with this Service Bulletin.

ACCOMPLISHMENT INSTRUCTIONS

The changes associated with this Service Bulletin are associated only with factory-new product provided by True Blue Power and marked accordingly.

To consider whether or not previously fielded product may be eligible for factory refurbishment and upgrade to include this modification, please contact True Blue Power.

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