



AIR CRUISERS

**SERVICE INFORMATION LETTER
S.I.L. 25-166**

TO: OPERATORS OF AIRCRAFT EQUIPPED WITH AIR CRUISERS COMPANY
EVACUATION SLIDES AND SLIDE/RAFTS

SUBJECT: Lighting System Test Unit: Approval of BaseWest Model TS-420 as an
acceptable alternative to DME Corporation Model TU-14

EFFECTIVITY: Mid Year 2002

The purpose of this Service Information Letter (S.I.L.) is to inform customers that Air Cruisers Company approves the use of BaseWest Model TS-420 Lighting System Test Unit as an acceptable alternative to DME Corporation Model TU-14 Lighting System Test Unit. The TU-14 is the test unit listed in Air Cruisers Company Evacuation Slide and Slide/Raft Component Maintenance Manuals.

Lighting systems may be tested with either the TU-14 or TS-420. Both units possess individual features, yet are similar in function and provide the same types of tests. Load settings and test inputs for amperage and voltage tests are identical. Specific procedures for each device are provided herein.

Refer to BaseWest Operating and Maintenance Manual 25-60-41 and BaseWest Calibration Manual 25-60-42 for further details.

The Model TS-420 Lighting System Test Unit and charging adapter are available from Air Cruisers Company, or from:

BaseWest Incorporated
601 21st Avenue
Hollywood, FL 33020

Tel: (954) 922-6531

Fax: (954) 922-5272

All applicable Air Cruisers Company Slide and Slide/Raft Component Maintenance Manuals will be updated at the next revision to include this alternate test unit and updated testing instructions contained herein.

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1. Light System Test

A. Light System Test using the TU-14 Test Unit (Figures 1 and 2)

NOTE: Prior to packing, perform a visual check to verify that each lamp is operating; “pre-pack” amperage (current) readings are compared to readings taken “post-pack” to ensure that all lamps are operating.

- (1). Check the power unit expiration date. Replace if the next scheduled maintenance date is before the expiration date of the power unit.
- (2). Check the condition of the TU-14 internal rechargeable battery as follows:
 - (a). Press the ON/OFF power switch S1 and release when the ON indicator LED illuminates . See the chart below for battery status LED indicator light indications.

TU-14 BATTERY STATUS LIGHTS	INDICATION
No battery status, all LED's are illuminated	OK for test; Battery charge is OK
YELLOW ON (Flashing)	Rechargeable battery pack has reached its near-end-of-useful-charge at 11.2 loaded volts. Use of the TU-14 may continue for a short time.
RED ON	Rechargeable battery pack has reached its end-of useful-charge at 10.0 volts. Use of the TU-14 should be discontinued until the battery pack is recharged. TU-14 readings obtained while this LED is illuminated are unreliable.
GREEN ON	Internal battery charging is in progress.

NOTE: The TU-14 internal rechargeable battery pack is charged at a 120mA rate when the TU-14 is connected, via the TU-14 1154 VAC line cord, to a 115 VAC source. Charging is indicated by the illumination of the CHARGING (green) LED.

The TU-14 rechargeable battery pack should return to full charge within approximately sixteen hours of charging.



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NOTE: To prevent damage to the connectors/cables when connecting and disconnecting the test or extension cables, grasp the connector body instead of pulling on the cable wire.

- (3). Connect the four-pin test connector from the power unit to the four-pin test receptacle J3 on the front panel. An extension cable, available from DME Corporation, may be utilized.
- (4). Rotate the Load selector switch S6 to the required load (A through F).
- (5). Press and hold the BAS load test switch S5.
- (6). After a three second stabilization period, verify the voltmeter reading is at or above the minimum specified reading.
- (7). Release the BAS load test switch S5.
- (8). Press and hold the Lamp Harness test switch S4.
 - (a). For a pre-pack test, allow three seconds for stabilization and record the TU-14 ammeter reading. Verify that all lamps are illuminated.
 - (b). For a post-pack reading, verify that the ammeter reading is within +/- .030 AMPS of the pre-pack reading.

NOTE: A post-pack reading which falls beyond the above range indicates the possibility of a system short, and/or a broken or defective lamp.

NOTE: To replace an individual lamp or an entire lamp harness, refer to the Repair section of the respective Air Cruisers Component Maintenance Manual.

- (9). Release Lamp Harness test switch S4. Test is complete.



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B. Light System Test using the TS-420 Test Set (Figures 3 and 4)

NOTE: Prior to packing, perform a visual check to verify that each lamp is operating; “pre-pack” amperage (current) readings are compared to readings taken “post-pack” to ensure that all lamps are operating.

- (1). Check the power unit expiration date. Replace if the expiration date is sooner than the next scheduled maintenance date.
- (2). Check the condition of the TS-420 internal rechargeable battery as follows:
 - (a). Place the mode selector switch into the AMMETER position.
 - (b). Push the PRESS TO TEST button. Observe the SELF TEST and LOW BATT indicators for the following indications:

SELF TEST INDICATOR	BATTERY STATUS INDICATOR	INDICATION
GREEN	OFF	OK for test; battery charge is OK.
GREEN	YELLOW	OK for test; battery is getting low. Recharge soon.
RED	YELLOW	Do not use for test; battery is low. Recharge immediately.
RED or OFF	OFF	Do not use for test; unit is inoperative. Return for service.

NOTE: The TS-420 internal rechargeable battery pack is charged at a 200mA nominal rate when the TS-420 is connected, via its accessory 115VAC source (a 220VAC wall adapter is also available). A charging indicator light is not provided. Full charge of a completely depleted battery requires approximately eight hours. The TS-420 test set has overcharge protection and may be left on charge for extended periods; although this is not recommended.



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NOTE: To prevent damage to the connectors/cables when connecting and disconnecting the test or extension cables, grasp the connector body instead of pulling on the cable wire.

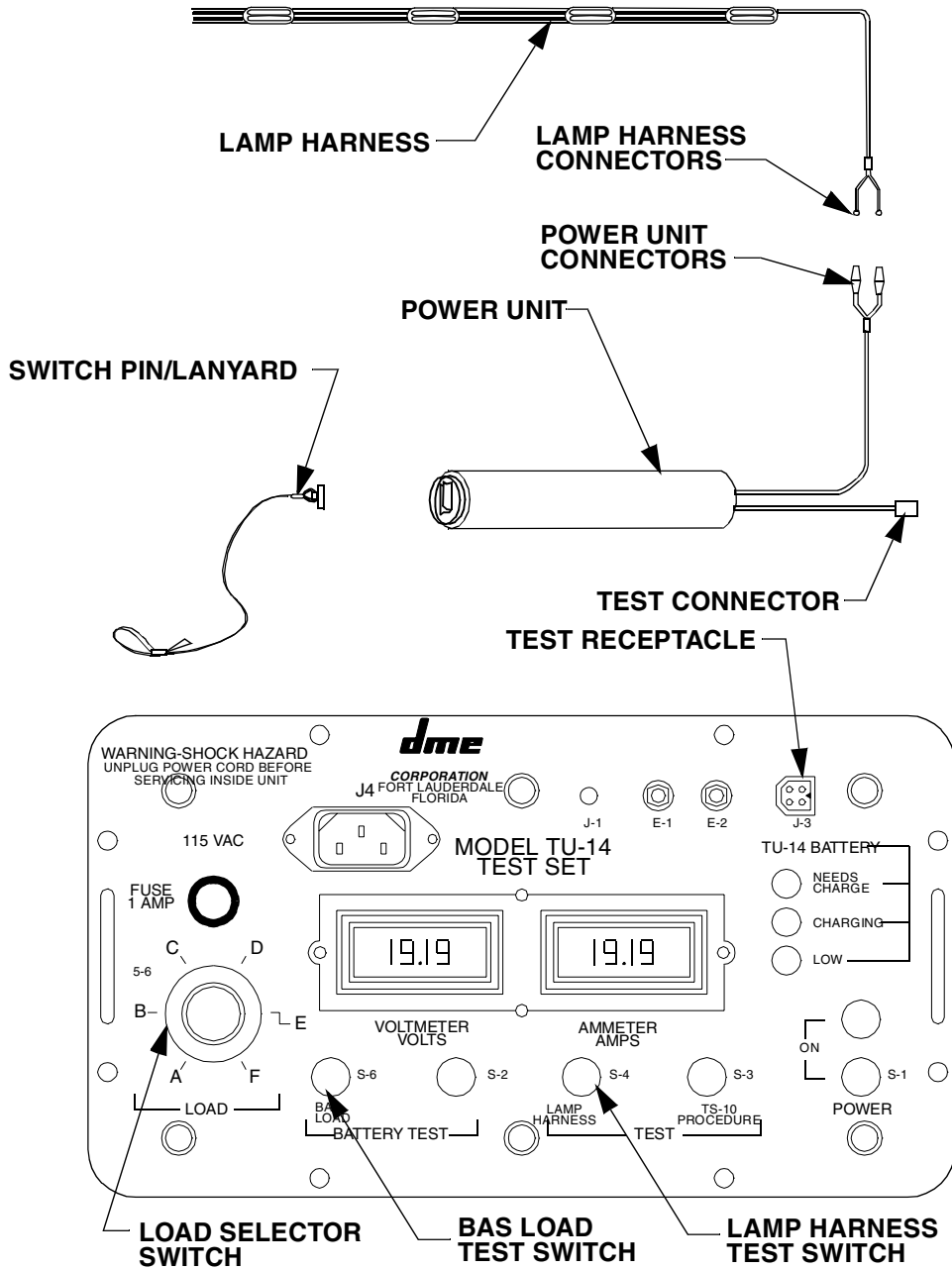
- (3). Connect the four-pin test connector from the power unit to the four-pin test receptacle on the TS-420 test unit connector block. An extension cable, available from BaseWest Incorporated, may be utilized.
- (4). Place the Mode Selector rocker switch into the VOLTMETER position.
- (5). Set the Load Selector rotary switch to the required load (A through F).
- (6). Press and hold the PRESS TO TEST button.
- (7). After a three second stabilization period, verify the voltmeter reading is at or above the minimum specified reading.
- (8). Release the PRESS TO TEST button.
- (9). Shift the Mode Selector rocker switch to the AMMETER position for pre-and post-pack testing of the lamp harness amperage.
- (10). Press the PRESS TO TEST button firmly and release. The unit will remain ON for about 20 seconds, allowing ample time to verify that all lamps illuminate.
- (11). After a three second stabilization period, record the ammeter reading.
- (12). Verify that the post pack ammeter reading is within +/- .020 AMPS of the pre-pack reading.
- (13). Test is complete

NOTE: A post-pack reading which falls beyond the above range indicates the possibility of a system short, and/or a broken or defective lamp.

NOTE: To replace an individual lamp or an entire lamp harness, refer to the Repair section of the respective Air Cruisers Component Maintenance Manual.



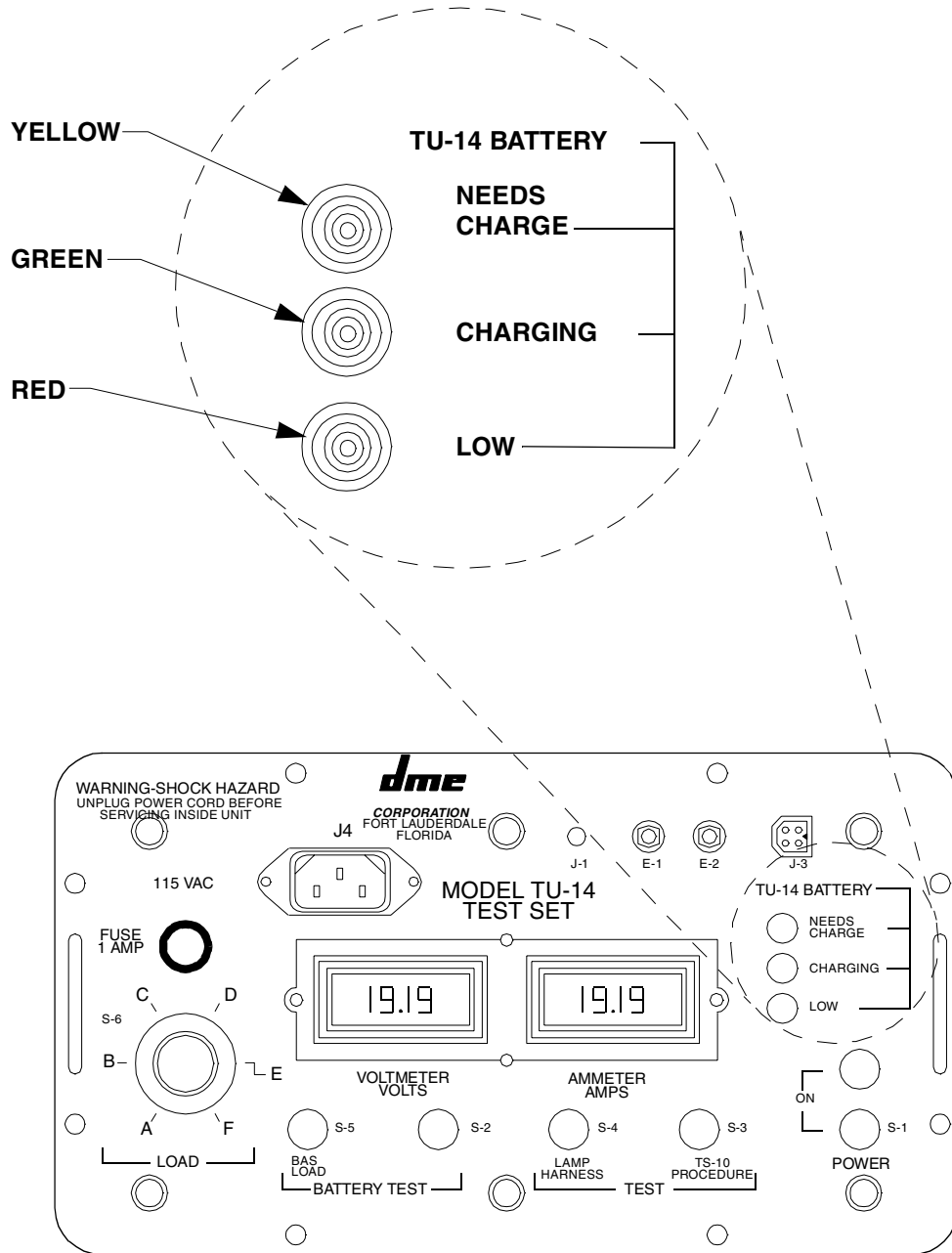
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TU-14 TEST UNIT
FIGURE 1



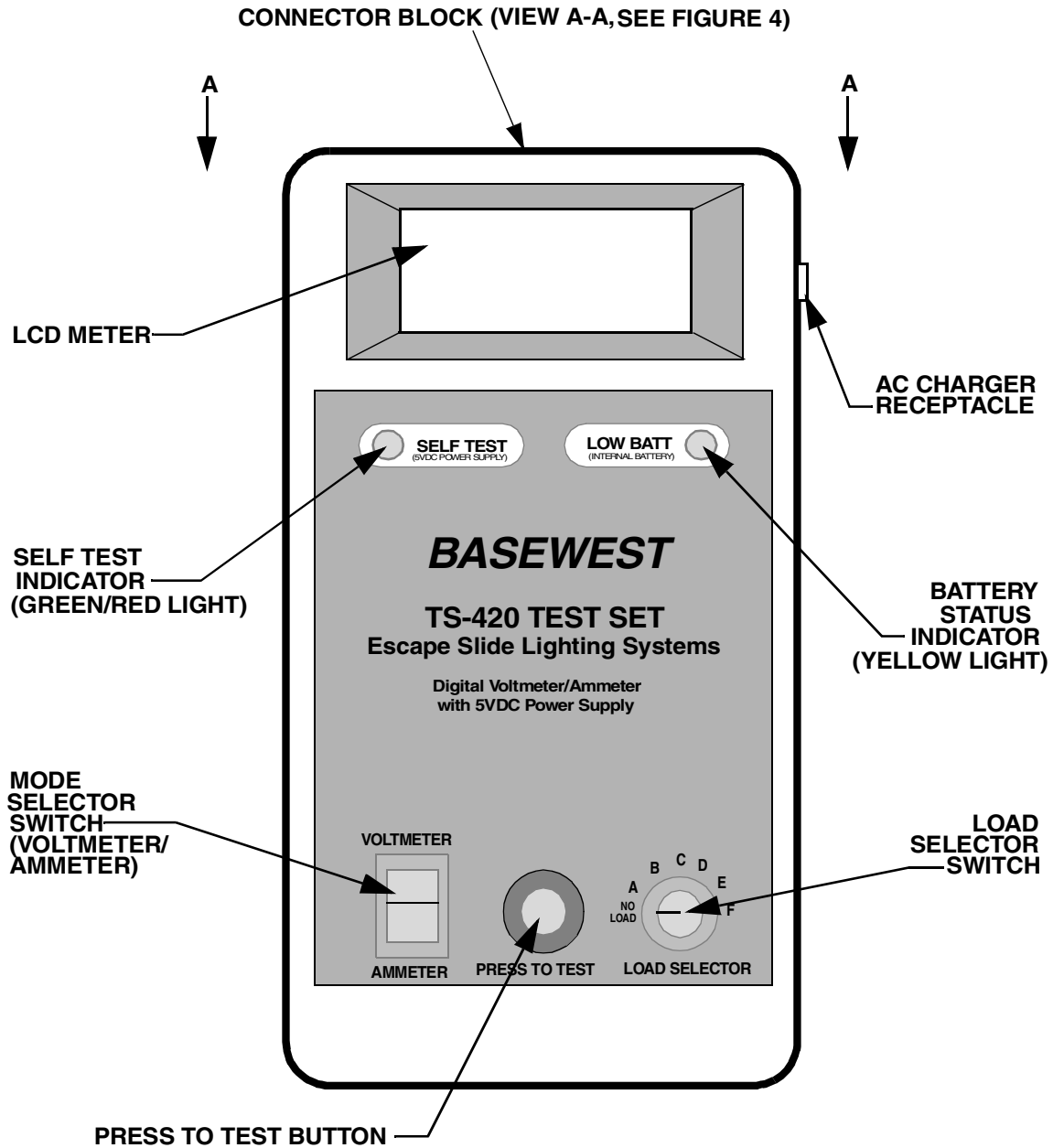
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TU-14 TEST UNIT
FIGURE 2



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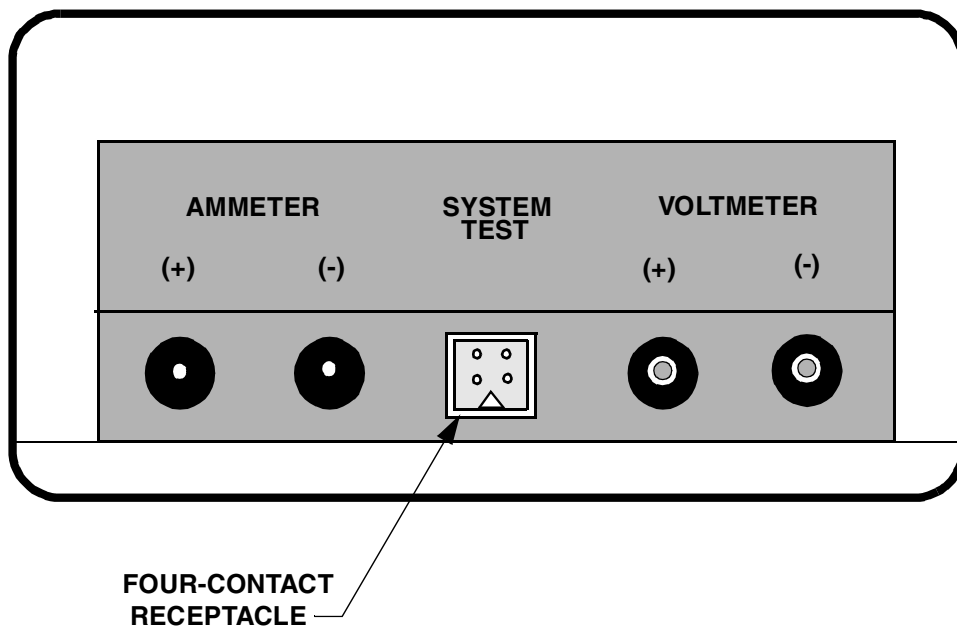


TS-420 TEST UNIT
FIGURE 3



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VIEW A-A : CONNECTOR BLOCK



TS-420 TEST UNIT
FIGURE 4

