

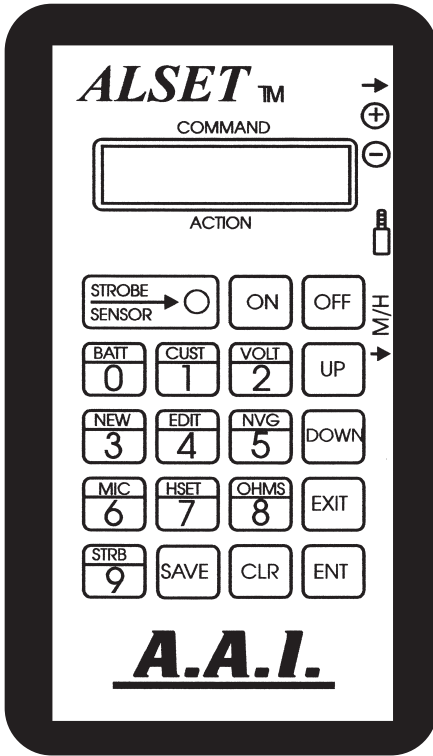
# ALSET™ USERS MANUAL

## AVIATION LIFE SUPPORT EQUIPMENT TESTER



**A.A.I.**





**ALSET™**  
**“AVIATION LIFE SUPPORT EQUIPMENT TESTER”**  
**MODEL 100/200/400**

The “ALSET” is a lightweight compact multi-purpose equipment tester powered by a standard commercial 9volt battery with over 40+ hours of continuous use. An automatic 3 minute shut-off feature after no use will save your battery power. The “ALSET” is engineered and programmed to test commercial alkaline and lithium batteries such as the: AAA, AA, C, D & 9V as well as various military lithium batteries supporting survival radios, distress marker strobe lights and night vision goggles. Up to 8 custom batteries of your choice may be programmed into memory for future use. The “ALSET” also features an OHM and Volt Meter that can be used in the testing of individual communication components.

The “ALSET” is programmed to test the flash rate per minute of the MS-2000M, SDU-5/E and other distress marker strobe lights.

Another outstanding feature of the “ALSET” is its capability of testing Aircrew flight helmet earphones, microphones and communication cords for ohms and continuity.

**MANUFACTURED BY:**

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## **GENERAL INFORMATION**

- Refer to Technical Orders/Manual for Official Testing Requirements
- When test leads are in operation insure proper contact has been made or a possible faulty reading may occur
- If Screen Display indicates “ALSET BAT LOW” or Screen Display is blank refer to Instructions for Battery Replacement
- WARNING: ALSET Does Not Test Volts AC, refer to Instructions for Volts Mode
- WARNING: Maximum allowable DC input voltage is 40 Volts DC, refer to Instructions for Volts Mode

## **GENERAL CARE AND MAINTENANCE**

- Do not immerse tester in liquids
- Keep free of dust and dirt
- Do not clean face with abrasives or solvents
- Tester may be wiped clean with damp cloth
- Insure test leads are free of grease and oil, periodically clean tips with alcohol
- Store tester in case when traveling or not in use
- Before operation, inspect test leads and NVG adapter for damaged insulation or exposed wires
- If tester is stored for extended periods of time, the internal 9V battery should be removed to prevent corrosion and possible damage to ALSET

## INSTRUCTIONS FOR STROBE LIGHT MODE

Strobe Mode allows user to test Distress Marker Strobe Lights, to include SDU-5/E and MS-2000M. *\*Note: Test may be performed with flash guard attached if required*

### ➤ Refer to Technical Orders/Manual for Official Testing Requirements

1. Press ON key
2. Press STRB key
3. Turn strobe light on
4. Hold strobe light within 1" of STROBE SENSOR
5. Allow strobe light to flash a minimum of 2 times
6. Remove strobe light from STROBE SENSOR
7. Turn off strobe light
8. Screen display will indicate flash rate per minute, test is now complete
9. To test additional strobe lights, Press STRB key twice, proceed with Step 3, Press EXIT key to leave STROBE MODE

*\*Note: If Strobe Test has been selected in error user must select the OFF key to reset the unit, proceed with Step 1*

## INSTRUCTIONS FOR PRE-PROGRAMMED BATTERY MODE

Pre-Programmed Battery Mode allows user to test battery with OHMS resistance and time test:

### ➤ Refer to Technical Orders/Manual for Official Testing Requirements

AA-AAA-C-D 1.5V ALKALINE

9 VOLT ALKALINE

SDU-5/E 6.4V LITHIUM

100 OHMS-10 SEC. TEST

PRC-90 12V LITHIUM

130 OHMS-10 SEC. TEST

URT 33C/M-D 9V LITHIUM

130 OHMS-10 SEC. TEST

NVG LOW PROFILE BATTERY PACK 3.0V

NVG LITHIUM 3.2V

NVG LITHIUM 3.6V

1. Plug test leads into side of tester, red to positive (+), black to negative (-)
2. Press ON key
3. Press BATT key
4. Press UP or DOWN key to select the desired pre-programmed battery
5. Press ENT key for battery to be tested

6. Place battery on stand provided, touch test leads to battery with the red lead touching positive terminal and black lead touching negative terminal, hold in place  
*\*Note: A negative reading will occur if leads are not touching the correct terminal. This will NOT harm the battery or tester.*
7. 1<sup>st</sup> beep indicates test has begun, continue to hold leads to battery, wait until 2<sup>nd</sup> beep, test is now complete
8. Remove test leads from terminals
9. Screen display will indicate battery voltage and percentage of the batteries rated voltage
10. To test same battery type, Press ENT key twice, proceed with Step 6, to test a different battery type, Press EXIT key once, proceed with Step 4
11. Press EXIT key twice to leave PRE-PROGRAMMED BATTERY MODE  
*\*Note: If Battery Test has been selected in error user must select the OFF key to reset the unit, proceed with Step 2.*

## INSTRUCTIONS FOR CUSTOM BATTERY MODE

Custom Battery Mode allows user to program up to eight new batteries into the memory of the ALSET, including voltage, OHMS resistance and time (V-R-T). User may test, edit or delete any batteries within the Custom Battery Mode.

### Programming New Custom Battery:

1. Press ON key
2. Press NEW key
3. Input voltage using numeric keys (example: For 12.3 volts, type in 1230, 12.30V will be displayed on screen), Press ENT key
4. Input resistance (if required) using numeric keys, Press ENT key
5. Input test time (in seconds) (if required) using numeric keys, Press ENT key
6. Press EXIT key
7. Press SAVE key, the new battery is saved into Custom Mode

### Test User Programmed Custom Battery:

1. Press ON key
2. Press CUST key
3. Press UP or DOWN key to select the desired custom battery
4. Press ENT key for battery to be tested
5. Place battery on stand provided, touch test leads to battery with the red lead touching positive terminal and black lead touching negative terminal, hold in place

***\*Note: A negative reading will occur if leads are not touching the correct terminal. This will NOT harm the battery or tester.***

6. 1<sup>st</sup> beep indicates test has begun, continue to hold leads to battery, wait until 2<sup>nd</sup> beep, test is now complete
7. Remove test leads from terminals
8. Screen display will indicate battery voltage and percentage of the batteries rated voltage
9. Press CUST key twice to continue test on custom batteries

**Edit User Programmed Custom Battery:**

1. Press ON key
2. Press EDIT key
3. Press UP or DOWN key to select the desired custom battery to be edited, once battery is selected on screen, user can begin to edit ANY field (V-R-T)
4. Press ENTER key to advance to the next appropriate field (V-R-T) to be edited, edit is complete
5. Press EXIT key, battery is now saved with changes in CUSTOM MODE

**Delete User Programmed Custom Battery:**

1. Press ON key
2. Press EDIT key
3. Press UP or DOWN key to select the desired custom battery to be deleted
4. Press CLR key twice, battery is deleted from CUSTOM MODE
5. Press EXIT key to leave EDIT MODE



## INSTRUCTIONS FOR NVG MODE

NVG Mode allows user to test the Helmet Mount Bracket, ANVIS Mount & Low Profile Battery Pack. In this mode user will be able to test the low battery indicator (LBI), voltage of the batteries, the switch, continuity of the wiring and all (4) Helmet Mount electrical contacts. The ALSET places the same mili-amp load onto the system as an actual Night Vision Goggle testing the entire system with load accuracy.

- **Refer to Technical Orders/Manual for Official Testing Requirements**

### NVG LBI Test Adapter P/N 14229-7

#### HGU-55/P /or/ JHMCS

##### **Low Battery Indicator (LBI) Circuit Functional Check:**

1. Remove any batteries from Helmet Mount Bracket
2. Disconnect Low Profile Battery Pack if connected
3. Place Helmet Mount Bracket battery switch to the “Off” position
4. Turn Helmet Mount Bracket over so LBI Light is facing upward, the Helmet Mount Bracket battery switch is now located on the left
5. With NVG LBI Test Adapter switches facing upward, connect the NVG LBI Test Adapter to Helmet Mount Bracket
6. Plug the NVG LBI Test Adapter cord into side of ALSET, red to positive (+), black to negative (-)
7. Press ON key
8. Press VOLT key
9. Turn Adjustment Voltage Knob full clockwise to the positive position
10. Pull down and hold the “Red” LBI Test Toggle Switch (Voltage reading on Screen Display must indicate a minimum of 2.4V)  
*\*Note: If reading on screen display is below 2.4V, the internal battery for the NVG LBI Test Adapter must be replaced. Discontinue test until corrected. Refer to Battery Replacement for NVG LBI Battery.*  
*\*Note: If reading on screen display is 2.4V and above, proceed with Step 11.*
11. Continue to hold down the “Red” LBI Test Toggle Switch
12. Slowly turn Adjustment Voltage Knob counter clockwise until the LBI light located on the Helmet Mount Bracket begins to flash
13. Screen display will indicate voltage reading, (compare reading with current T.O. specifications for Low Battery Indicator (LBI) Circuit Functional Check)
14. Release “Red” LBI Test Toggle Switch  
*\*If reading is NOT within T.O. specifications, the Helmet Mount Assembly is faulty, discontinue test. Refer to T.O. specifications.*

*\*If reading is within T.O. specifications, the Low Battery Indicator (LBI) Circuit Functional Check is now complete.*

**- Helmet Mount Bracket Battery Test W/O Low Profile Battery Pack, proceed with Step 5**

**- Helmet Mount Bracket Battery Test With Low Profile Battery Pack Test, proceed to Page 7, Step 5**

**Helmet Mount Bracket Battery Test: \*\*\*W/O Low Profile Battery Pack\*\*\***

- **WARNING: DURING THIS TEST NEVER TOUCH “RED” TOGGLE SWITCH**
  - 1. Turn Helmet Mount Bracket over so LBI Light is facing upward, the Helmet Mount Bracket battery switch is now located on the left
  - 2. With NVG LBI Test Adapter switches facing upward, connect the NVG LBI Test Adapter to Helmet Mount Bracket
  - 3. Plug the NVG LBI Test Adapter cord into side of ALSET, red to positive (+), black to negative (-)
  - 4. Press ON key
  - 5. Install Helmet Mount Bracket batteries
  - 6. Press EXIT key
  - 7. Press NVG key
  - 8. Place Helmet Mount Bracket Battery switch to “Up” position and the NVG LBI Test Adapter “Blue” Toggle Switch to position “1”
  - 9. Press UP or DOWN key on ALSET to select the desired NVG Battery
  - 10. Press ENT key for battery to be tested
  - 11. 1<sup>st</sup> beep indicates test has begun, wait until 2<sup>nd</sup> beep, test is now complete
  - 12. Screen display will indicate battery voltage and percentage of the batteries rated voltage
  - 13. Place Helmet Mount Bracket Battery switch to “Down” position
  - 14. Press EXIT key
  - 15. Press ENT key
  - 16. 1<sup>st</sup> beep indicates test has begun, wait until 2<sup>nd</sup> beep, test is now complete
  - 17. Screen display will indicate battery voltage and percentage of the batteries rated voltage
  - 18. Press EXIT key
- \*Helmet Mount Bracket Battery Test W/O Low Profile Battery Pack is now complete, proceed below with “Redundant Wiring Circuit Test”.*

**Redundant Wiring Circuit Test:**

- **WARNING: DURING THIS TEST NEVER TOUCH “RED” TOGGLE SWITCH**

19. Place NVG LBI Test Adapter “Blue” Toggle Switch to position “2”
20. Press ENT key
21. 1<sup>st</sup> beep indicates test has begun, wait until 2<sup>nd</sup> beep, test is now complete
22. Screen display will indicate battery voltage and percentage of the batteries rated voltage
23. Place Helmet Mount Bracket Battery switch to “Up” position
24. Press EXIT key
25. Press ENT key
26. 1<sup>st</sup> beep indicates test has begun, wait until 2<sup>nd</sup> beep, test is now complete
27. Screen display will indicate battery voltage and percentage of the batteries rated voltage  
*\*Redundant Wiring Circuit Test is now complete*
28. Place Helmet Mount Bracket Battery switch to “Off” position
29. Remove NVG LBI Test Adapter from Helmet Mount Bracket
30. Remove NVG LBI Test Adapter cord from ALSET
31. Press EXIT key twice to leave NVG MODE

### **Helmet Mount Bracket Battery Test: \*\*\*With Low Profile Battery Pack\*\*\***

➤ **WARNING: DURING THIS TEST NEVER TOUCH “RED” TOGGLE SWITCH**

1. Turn Helmet Mount Bracket over so LBI Light is facing upward, the Helmet Mount Bracket battery switch is now located on the left
2. With NVG LBI Test Adapter switches facing upward, connect the NVG LBI Test Adapter to Helmet Mount Bracket
3. Plug the NVG LBI Test Adapter cord into side of ALSET, red to positive (+), black to negative (-)
4. Press ON key
5. Install (1) battery to left side of Helmet Mount Bracket
6. Connect Low Profile Battery Pack to right side of Helmet Mount Bracket
7. Press EXIT key
8. Press NVG key
9. Place Helmet Mount Bracket Battery switch to “Up” position and the NVG LBI Test Adapter “Blue” Toggle Switch to position “1”
10. Press UP or DOWN key on ALSET to select the desired NVG Battery
11. Press ENT key for battery to be tested
12. 1<sup>st</sup> beep indicates test has begun, wait until 2<sup>nd</sup> beep, test is now complete
13. Screen display will indicate battery voltage and percentage of the batteries rated voltage
14. Place Helmet Mount Bracket Battery switch to “Down” position and the Low Profile Battery Pack switch to position “A”
15. Press EXIT key
16. Press UP or DOWN key on ALSET to select the desired NVG Battery

17. Press ENT key for battery to be tested
  18. 1<sup>st</sup> beep indicates test has begun, wait until 2<sup>nd</sup> beep, test is now complete
  19. Screen display will indicate battery voltage and percentage of the battery packs rated voltage
  20. Place Low Profile Battery Pack switch to position “B”
  21. Press EXIT key
  22. Press ENT key
  23. 1<sup>st</sup> beep indicates test has begun, wait until 2<sup>nd</sup> beep, test is now complete
  24. Screen display will indicate battery voltage and percentage of the battery packs rated voltage
  25. Press EXIT key
- \*Helmet Mount Bracket Battery Test With Low Profile Battery Pack is now complete, proceed below with “Redundant Wiring Circuit Test”.***

### **Redundant Wiring Circuit Test:**

- **WARNING: DURING THIS TEST NEVER TOUCH “RED” TOGGLE SWITCH**

26. Place NVG LBI Test Adapter “Blue” Toggle Switch to position “2”
  27. Press ENT key
  28. 1<sup>st</sup> beep indicates test has begun, wait until 2<sup>nd</sup> beep, test is now complete
  29. Screen display will indicate battery voltage and percentage of the battery packs rated voltage
  30. Place Low Profile Battery Pack switch to position “A”
  31. Press EXIT key
  32. Press ENT key
  33. 1<sup>st</sup> beep indicates test has begun, wait until 2<sup>nd</sup> beep, test is now complete
  34. Screen display will indicate battery voltage and percentage of the battery packs rated voltage
  35. Place Helmet Mount Bracket Battery switch to “Up” position
  36. Press EXIT key
  37. Press UP or DOWN key on ALSET to select the desired NVG Battery
  38. Press ENT key for battery to be tested
  39. 1<sup>st</sup> beep indicates test has begun, wait until 2<sup>nd</sup> beep, test is now complete
  40. Screen display will indicate battery voltage and percentage of the batteries rated voltage
- \*Redundant Wiring Circuit Test is now complete***
41. Place Helmet Mount Bracket Battery switch to “Off” position
  42. Remove NVG LBI Test Adapter from Helmet Mount Bracket
  43. Remove NVG LBI Test Adapter cord from ALSET
  44. Press EXIT key twice to leave NVG MODE

## NVG Adapter P/N 14229-3

### HGU-55/P /or/ JHMCS

#### **Helmet Mount Bracket Battery Test: \*\*\*W/O Low Profile Battery Pack\*\*\***

1. With NVG Adapter switch facing upward, connect the NVG Adapter to Helmet Mount Bracket
2. Plug the NVG Adapter cord into side of ALSET, red to positive (+), black to negative (-)
3. Install Helmet Mount Bracket batteries
4. Press ON key
5. Press NVG key
6. Place Helmet Mount Bracket Battery switch to “Up” position and the NVG Adapter Toggle Switch to position “1”
7. Press UP or DOWN key on ALSET to select the desired NVG Battery
8. Press ENT key for battery to be tested
9. 1<sup>st</sup> beep indicates test has begun, wait until 2<sup>nd</sup> beep, test is now complete
10. Screen display will indicate battery voltage and percentage of the batteries rated voltage
11. Place Helmet Mount Bracket Battery switch to “Down” position
12. Press EXIT key
13. Press ENT key
14. 1<sup>st</sup> beep indicates test has begun, wait until 2<sup>nd</sup> beep, test is now complete
15. Screen display will indicate battery voltage and percentage of the batteries rated voltage
16. Press EXIT key  
*\*Helmet Mount Bracket Battery Test W/O Low Profile Battery Pack is now complete, proceed below with “Redundant Wiring Circuit Test”.*

#### **Redundant Wiring Circuit Test:**

17. Place NVG Adapter Toggle Switch to position “2”
18. Press ENT key
19. 1<sup>st</sup> beep indicates test has begun, wait until 2<sup>nd</sup> beep, test is now complete
20. Screen display will indicate battery voltage and percentage of the batteries rated voltage
21. Place Helmet Mount Bracket Battery switch to “Up” position
22. Press EXIT key
23. Press ENT key
24. 1<sup>st</sup> beep indicates test has begun, wait until 2<sup>nd</sup> beep, test is now complete
25. Screen display will indicate battery voltage and percentage of the batteries rated voltage  
*\*Redundant Wiring Circuit Test is now complete*

26. Place Helmet Mount Bracket Battery switch to “Off” position
27. Remove NVG Adapter from Helmet Mount Bracket
28. Remove NVG Adapter cord from ALSET
29. Press EXIT key twice to leave NVG MODE

**Helmet Mount Bracket Battery Test: \*\*\*With Low Profile Battery Pack\*\*\***

1. With NVG Adapter switch facing upward, connect the NVG Adapter to Helmet Mount Bracket
2. Plug the NVG Adapter cord into side of ALSET, red to positive (+), black to negative (-)
3. Connect Low Profile Battery Pack with batteries installed to right side of Helmet Mount Bracket
4. Install (1) battery to left side of Helmet Mount Bracket
5. Press ON key
6. Press NVG key
7. Place Helmet Mount Bracket Battery switch to “Up” position and the NVG Adapter Toggle Switch to position “1”
8. Press UP or DOWN key on ALSET to select the desired NVG Battery
9. Press ENT key for battery to be tested
10. 1<sup>st</sup> beep indicates test has begun, wait until 2<sup>nd</sup> beep, test is now complete
11. Screen display will indicate battery voltage and percentage of the batteries rated voltage
12. Place Helmet Mount Bracket Battery switch to “Down” position and the Low Profile Battery Pack switch to position “A”
13. Press EXIT key
14. Press UP or DOWN key on ALSET to select the desired NVG Battery
15. Press ENT key for battery to be tested
16. 1<sup>st</sup> beep indicates test has begun, wait until 2<sup>nd</sup> beep, test is now complete
17. Screen display will indicate battery voltage and percentage of the battery packs rated voltage
18. Place Low Profile Battery Pack switch to position “B”
19. Press EXIT key
20. Press ENT key
21. 1<sup>st</sup> beep indicates test has begun, wait until 2<sup>nd</sup> beep, test is now complete
22. Screen display will indicate battery voltage and percentage of the battery packs rated voltage
23. Press EXIT key

***\*Helmet Mount Bracket Battery Test With Low Profile Battery Pack is now complete, proceed below with “Redundant Wiring Circuit Test”.***

## Redundant Wiring Circuit Test:

24. Place NVG Adapter Toggle Switch to position “2”
25. Press ENT key
26. 1<sup>st</sup> beep indicates test has begun, wait until 2<sup>nd</sup> beep, test is now complete
27. Screen display will indicate battery voltage and percentage of the battery packs rated voltage
28. Place Low Profile Battery Pack switch to position “A”
29. Press EXIT key
30. Press ENT key
31. 1<sup>st</sup> beep indicates test has begun, wait until 2<sup>nd</sup> beep, test is now complete
32. Screen display will indicate battery voltage and percentage of the battery packs rated voltage
33. Place Helmet Mount Bracket Battery switch to “Up” position
34. Press EXIT key
35. Press UP or DOWN key on ALSET to select the desired NVG Battery
36. Press ENT key for battery to be tested
37. 1<sup>st</sup> beep indicates test has begun, wait until 2<sup>nd</sup> beep, test is now complete
38. Screen display will indicate battery voltage and percentage of the batteries rated voltage  
*\*Redundant Wiring Circuit Test is now complete*
39. Place Helmet Mount Bracket Battery switch to “Off” position
40. Remove NVG Adapter from Helmet Mount Bracket
41. Remove NVG Adapter cord from ALSET
42. Press EXIT key twice to leave NVG MODE

## NVG LBI Test Adapter P/N 14229-7

### HGU-56/P

#### Low Battery Indicator (LBI) Circuit Functional Check:

1. Connect Low Profile Battery Pack to ANVIS Mount
2. Remove any batteries from Low Profile Battery Pack and place switch to the “Off” position
3. Turn ANVIS Mount over so LBI Light is facing upward
4. With NVG LBI Test Adapter switches facing upward, connect the NVG LBI Test Adapter to ANVIS Mount
5. Plug the NVG LBI Test Adapter cord into side of ALSET, red to positive (+), black to negative (-)
6. Press ON key
7. Press VOLT key
8. Turn Adjustment Voltage Knob full clockwise to the positive position
9. Pull down and hold the “Red” LBI Test Toggle Switch (Voltage reading on Screen Display must indicate a minimum of 2.4V)  
*\*Note: If reading on screen display is below 2.4V, the internal battery for the NVG LBI Test Adapter must be replaced. Discontinue test until corrected. Refer to Battery Replacement for NVG LBI Battery.*  
*\*Note: If reading on screen display is 2.4V and above, proceed with Step 10.*
10. Continue to hold down the “Red” LBI Test Toggle Switch
11. Slowly turn Adjustment Voltage Knob counter clockwise until the LBI light located on the ANVIS Mount begins to flash
12. Screen display will indicate voltage reading, (compare reading with current T.O. specifications for Low Battery Indicator (LBI) Circuit Functional Check)
13. Release “Red” LBI Test Toggle Switch  
*\*If reading is NOT within T.O. specifications, the ANVIS Mount is faulty, discontinue test. Refer to T.O. specifications.*  
*\*If reading is within T.O. specifications, the Low Battery Indicator (LBI) Circuit Functional Check is now complete.*

- ANVIS Mount Test With Low Profile Battery Pack, proceed with Step 6

#### ANVIS Mount Test: \*\*\*With Low Profile Battery Pack\*\*\*

- **WARNING: DURING THIS TEST NEVER TOUCH “RED” TOGGLE SWITCH**
1. Turn ANVIS Mount over so LBI Light is facing upward



2. With NVG LBI Test Adapter switches facing upward, connect the NVG LBI Test Adapter to ANVIS Mount
3. Plug the NVG LBI Test Adapter cord into side of ALSET, red to positive (+), black to negative (-)
4. Press ON key
5. Connect Low Profile Battery Pack to ANVIS Mount
6. Install batteries into Low Profile Battery Pack
7. Press EXIT key
8. Press NVG key
9. Place Low Profile Battery Pack switch to “Primary” position and the NVG LBI Test Adapter “Blue” Toggle Switch to position “1”
10. Press UP or DOWN key on ALSET to select the desired NVG Battery
11. Press ENT key for battery to be tested
12. 1<sup>st</sup> beep indicates test has begun, wait until 2<sup>nd</sup> beep, test is now complete
13. Screen display will indicate battery voltage and percentage of the battery packs rated voltage
14. Place Low Profile Battery Pack switch to “Alternate” position
15. Press EXIT key
16. Press ENT key
17. 1<sup>st</sup> beep indicates test has begun, wait until 2<sup>nd</sup> beep, test is now complete
18. Screen display will indicate battery voltage and percentage of the battery packs rated voltage
19. Press EXIT key  
*\*ANVIS Mount Test With Low Profile Battery Pack is now complete, proceed below with “Redundant Wiring Circuit Test”.*

### **Redundant Wiring Circuit Test:**

- **WARNING: DURING THIS TEST NEVER TOUCH “RED” TOGGLE SWITCH**
20. Place NVG LBI Test Adapter “Blue” Toggle Switch to position “2”
  21. Press ENT key
  22. 1<sup>st</sup> beep indicates test has begun, wait until 2<sup>nd</sup> beep, test is now complete
  23. Screen display will indicate battery voltage and percentage of the battery packs rated voltage
  24. Place Low Profile Battery Pack switch to “Primary” position
  25. Press EXIT key
  26. Press ENT key
  27. 1<sup>st</sup> beep indicates test has begun, wait until 2<sup>nd</sup> beep, test is now complete
  28. Screen display will indicate battery voltage and percentage of the battery packs rated voltage  
*\*Redundant Wiring Circuit Test is now complete*

29. Place Low Profile Battery Pack switch to “Off” position
30. Remove NVG LBI Test Adapter from ANVIS Mount
31. Remove NVG LBI Test Adapter cord from ALSET
32. Press EXIT key twice to leave NVG MODE

## NVG Adapter P/N 14229-3

### HGU-56/P

#### **ANVIS Mount Test: \*\*\*With Low Profile Battery Pack\*\*\***

1. With NVG Adapter switch facing upward, connect the NVG Adapter to ANVIS Mount
2. Plug the NVG Adapter cord into side of ALSET, red to positive (+), black to negative (-)
3. Connect Low Profile Battery Pack with batteries installed to ANVIS Mount
4. Press ON key
5. Press NVG key
6. Place Low Profile Battery Pack switch to “Primary” position and NVG Adapter Toggle Switch to position “1”
7. Press UP or DOWN key on ALSET to select the desired NVG Battery
8. Press ENT key for battery to be tested
9. 1<sup>st</sup> beep indicates test has begun, wait until 2<sup>nd</sup> beep, test is now complete
10. Screen display will indicate battery voltage and percentage of the battery packs rated voltage
11. Place Low Profile Battery Pack switch to “Alternate” position
12. Press EXIT key
13. Press ENT key
14. 1<sup>st</sup> beep indicates test has begun, wait until 2<sup>nd</sup> beep, test is now complete
15. Screen display will indicate battery voltage and percentage of the battery pack rated voltage
16. Press EXIT key  
*\*ANVIS Mount Test With Low Profile Battery Pack is now complete, proceed below with “Redundant Wiring Circuit Test”.*

#### **Redundant Wiring Circuit Test:**

17. Place NVG Adapter Toggle Switch to position “2”
18. Press ENT key
19. 1<sup>st</sup> beep indicates test has begun, wait until 2<sup>nd</sup> beep, test is now complete
20. Screen display will indicate battery voltage and percentage of the battery pack rated voltage
21. Place Low Profile Battery Pack switch to “Primary” position
22. Press EXIT key
23. Press ENT key
24. 1<sup>st</sup> beep indicates test has begun, wait until 2<sup>nd</sup> beep, test is now complete
25. Screen display will indicate battery voltage and percentage of the battery packs rated voltage

***\*Redundant Wiring Circuit Test is now complete***

26. Place Low Profile Battery Pack switch to “Off” position
27. Remove NVG Adapter from ANVIS Mount
28. Remove NVG Adapter cord from ALSET
29. Press EXIT key twice to leave NVG MODE

## INSTRUCTIONS FOR COMMUNICATIONS MODE

Communications Mode allows user to test communications cord, dynamic microphone and low or high impedance dynamic headset earphones.

***\*Note: Prior to any test below insure microphone and earphones set screws are securely tightened, if not, you may receive faulty readings***

***\*Note: For Custom Earpiece System and CEP acceptable readings, refer to Manufacturer's Specifications***

1. Press ON key
2. Connect Comm Cord to ALSET
3. Press MIC key  
**(Acceptable reading on screen display.....4-7 OHMS)**
4. Press EXIT key
5. Press HSET key  
**(Acceptable reading on screen display.....8-12 OHMS)**
6. If Microphone and Headset readings are within their acceptable ranges, test is now complete
7. Remove Comm Cord from ALSET
8. Press EXIT key to leave COMMUNICATIONS MODE  
**-To isolate unacceptable readings for the HGU-55/P, proceed with Step 9**  
**-To isolate unacceptable readings for the HGU-56/P, proceed to Page 18**
9. Remove possible faulty component from Comm Cord
10. Connect Comm Cord to ALSET
11. Connect Comm Cord (Microphone or Headset) Connector to ALSET
12. Press MIC or HSET key, which corresponds with Connector plugged into ALSET  
  
**\*If reading on screen display is between 9-11 OHMS, the Microphone or Headset is the faulty component**  
  
**\*If reading is NOT between 9-11 OHMS, the Comm Cord is the faulty component**
13. Press EXIT key
14. Remove Comm Cord and Connector from ALSET
15. Replace faulty component
16. Retest, proceed with Step 2

## HGU-56/P (Isolating unacceptable readings)

### MIC TEST

1. Plug test leads into side of tester, red to positive (+), black to negative (-)
2. Press OHMS key
3. Touch test leads to Microphone/Comm Cord connector screws

**\*If reading on screen display is NOT between 4-7 OHMS, the Microphone is the faulty component**

**\*If reading is between 4-7 OHMS, the Comm Cord is the faulty component**

### HEADSET EARPHONE TEST

***\*Note: During this test each earphone MUST be removed from Comm Cord and tested individually.***

1. Plug test leads into side of tester, red to positive (+), black to negative (-)
2. Press OHMS key
3. Touch test leads to Earphone wire connector screws

**\*If reading on screen display is NOT between 17-24 OHMS, the Earphone is the faulty component**

**\*If reading is between 17-24 OHMS the Comm Cord is the faulty component**

4. Press EXIT key
5. Remove test leads from ALSET
6. Replace faulty component
7. Retest, proceed with Step 2

## INSTRUCTIONS FOR OHMS MODE

OHMS Mode allows user to measure the resistance of individual communication components.

1. Plug test leads into side of tester, red to positive (+), black to negative (-)
2. Press ON key
3. Press OHMS key
4. User may test the resistance of individual communication components

## INSTRUCTIONS FOR VOLTS MODE

- **WARNING: ALSET DOES NOT TEST VOLTS AC (Damage to ALSET will occur and void all warranties)**
  - **WARNING: Maximum allowable DC input voltage is 40 Volts DC. Load resistance must not exceed either of the following: (Damage to ALSET will occur and void all warranties)**
    - a) 6 Watts = (V<sup>2</sup> divided by load)
    - b) 1 Amp internally limited
1. Plug test leads into side of tester, red to positive (+), black to negative (-)
  2. Press ON key
  3. Press VOLTS key
  4. User may verify or check batteries voltage

## BATTERY REPLACEMENT

### Instructions for ALSET Battery:

The ALSET is powered by a single 9V battery. Use the following procedure for replacement:

1. Remove any and all test leads from ALSET
2. Insure ALSET is turned off
3. Remove Protective Rubber Boot from ALSET
4. Remove Battery Cover from back of ALSET
5. Lift battery from the Battery Compartment, and carefully disconnect the Battery Connector Leads, DO NOT pull hard on Connector Leads as this may cause internal disconnect
- **WARNING: DO NOT USE ANY METAL OBJECTS WHEN REMOVING BATTERY FROM CONNECTOR LEADS.**
6. Snap the Battery Connector Leads to the terminals of a new battery and reinsert the battery into the Battery Compartment. Dress the Battery Connector Leads so they will not be pinched between the Battery Compartment and Battery Cover
7. Reinstall Battery Cover
8. Reinstall Protective Rubber Boot to ALSET
9. ALSET is ready for use

### Instructions for NVG LBI Battery:

The NVG LBI Test Adapter is powered by a single 3.2 or 3.6 Lithium battery. Use the following procedure for replacement:

1. Remove NVG LBI Test Adapter from ALSET
2. Remove (4) screws from face of Adapter
3. Lift and separate face of Adapter slowly upward until Battery Compartment is exposed
4. Remove Lithium battery
- **WARNING: DO NOT USE ANY METAL OBJECTS WHEN REMOVING BATTERY.**
5. Install new Lithium battery, insure contacts are positive (+) to positive (+), negative (-) to negative (-)
6. Reposition face to Adapter
7. Reinstall (4) screws to face of Adapter, DO NOT over tighten



## **CALIBRATION**

The ALSET must be calibrated annually to insure it performs according to its specifications. For calibration questions contact A.A.I. @ 1-800-845-1994 or visit our website @ [www.alset.us](http://www.alset.us) for calibration instructions or specifications.

## **WARRANTY AND REPAIR**

The “ALSET” Tester is warranted for a period of one (1) year from the date of shipment for manufacturing defects. During the warranty, A.A.I. will repair or replace the defective “ALSET” Tester free of charge. All warranty terms are per GSA Schedule Contract #GS-07F-5380R.

A.A.I. makes no additional warranties of any kind with regards to the “ALSET” Tester under this agreement. Any such warranties are hereby expressly disclaimed to the maximum extent permitted by law.

A.A.I. shall not be liable for consequential damages resulting from any defect, misuse or deficiencies in items accepted under this agreement.

A.A.I. shall have no liability or entity with respect to any liability, loss or damage caused or alleged to be caused directly or indirectly by this equipment.

“ALSET “ Tester must have original serial code label on unit in order for warranty to be valid. Any unit received without or altered original serial code label will be terms for voiding warranty agreement.

A.A.I. assumes no risk for damage in transit.

To submit a warranty claim, please contact A.A.I. directly to obtain a Return Authorization Claim Number. Send your “ALSET” Tester with test leads and NVG Adapter in its case properly packaged with your phone number, email address, claim number and accurate UPS shipping address to: **A.A.I., 1213 Sandstone Drive, St. Charles, MO 63304. Phone: 1-800-845-1994 Website: [www.alset.us](http://www.alset.us)**

For any and all repairs not associated with warranty please contact **A.A.I. directly at 1-800-845-1994**

## **SPECIFICATIONS**

Internal Fuse	5X20MM (1 Amp)
Operating Temperature	0°C to 50°C
Storage Temperature	-10°C to 60°C

## **REPLACEMENT PARTS**

Replaceable parts are listed below. To order contact A.A.I. @ 1-800-845-1994.

Battery Stand	P/N 14229-1
Carrying Case	P/N 14229-2
NVG Adapter	P/N 14229-3
Test Lead Set	P/N 14229-4
Users Manual	P/N 14229-5
Protective Rubber Boot	P/N 14229-6
NVG LBI Test Adapter	P/N 14229-7



P/N 14229-5

**A. A. I.**



**1213 Sandstone Drive  
St. Charles, MO 63304  
(800) 845-1994**

**[www.aaiusa.us](http://www.aaiusa.us)**