

DESCRIPTION AND OPERATION

1. General

- A. The Crew Rest Module is designed to provide accommodation for two flight crew members who will be carried on the subject aircraft as a spare flight crew for overseas deployment.
- B. The Crew Rest Module is mounted on a standard 88.0" x 125" pallet and installed in the 'A1' cargo container position in the front of the cargo compartment. Access to the Crew Rest Module is via the existing entry door into the Cargo Compartment.
- C. The Crew Rest Module is constructed from a series of slot-joint panels. The panels consist of Aluminium Alloy 2024-T3 skins with an Aluminium Alloy 3003 Honeycomb Core.

2. Description

A. Flight Deck Tunnel

The Flight Deck Tunnel is located on the LH sidewall of the Crew Rest Module (see figure 1, sheet 1) and provides access to the Flight Deck Door from the Crew Rest Module and is sealed using a Velcro Attachment.

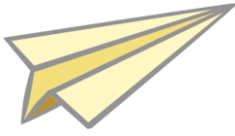
The Crew Rest Module Velcro Attachment provides a smoke seal between the Crew Rest and the Flight Deck so that in the event of a smouldering fire the crew rest area remains smoke free.

B. Rear Door

The Rear Door is located on the AFT sidewall of Crew Rest Module (see figure 1, sheet 1) and provides access to the Cargo Compartment. A rubber seal provides a smoke seal around the door so that in the event of a smouldering fire the Crew Rest area remains smoke free. The Rear Door is for ground use only and must remain locked under all flight conditions.

C. Sleeping Surfaces

The Crew Rest Module has two Sleeping surfaces located against the FWD and AFT sidewalls (see figure 1, sheet 2). The surfaces provide a level area to house the Mattress and a Side Guide keeps the Mattress in place.



D. Wardrobe

The Wardrobe is located in the LH corner of the FWD sidewall (see figure 1, sheet 2). The Wardrobe is accessed via a door on its AFT face. A Rail provides storage space for crew members to hang clothing.

E. Upper Locker

The Upper Locker is Located on the RH Sidewall, between the sleeping surfaces (see figure 1, sheet 3). The Locker provides storage for Crew members.

F. Floor Stowage

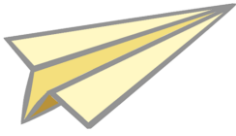
The Floor Stowage comprises of four Lockers located two beneath each Sleeping Surface (see figure 1, sheet 2). The Lockers provides storage for Crew members.

G. Utility Module

The Utility Module is located on the RH sidewall, above the sleeping surfaces (see figure 1, sheet 3). The Utility Module houses the Oxygen Drop Down, two Reading Snakelights and Switch, Interphone, two power sockets, Heater Thermostat and Dome light switch.

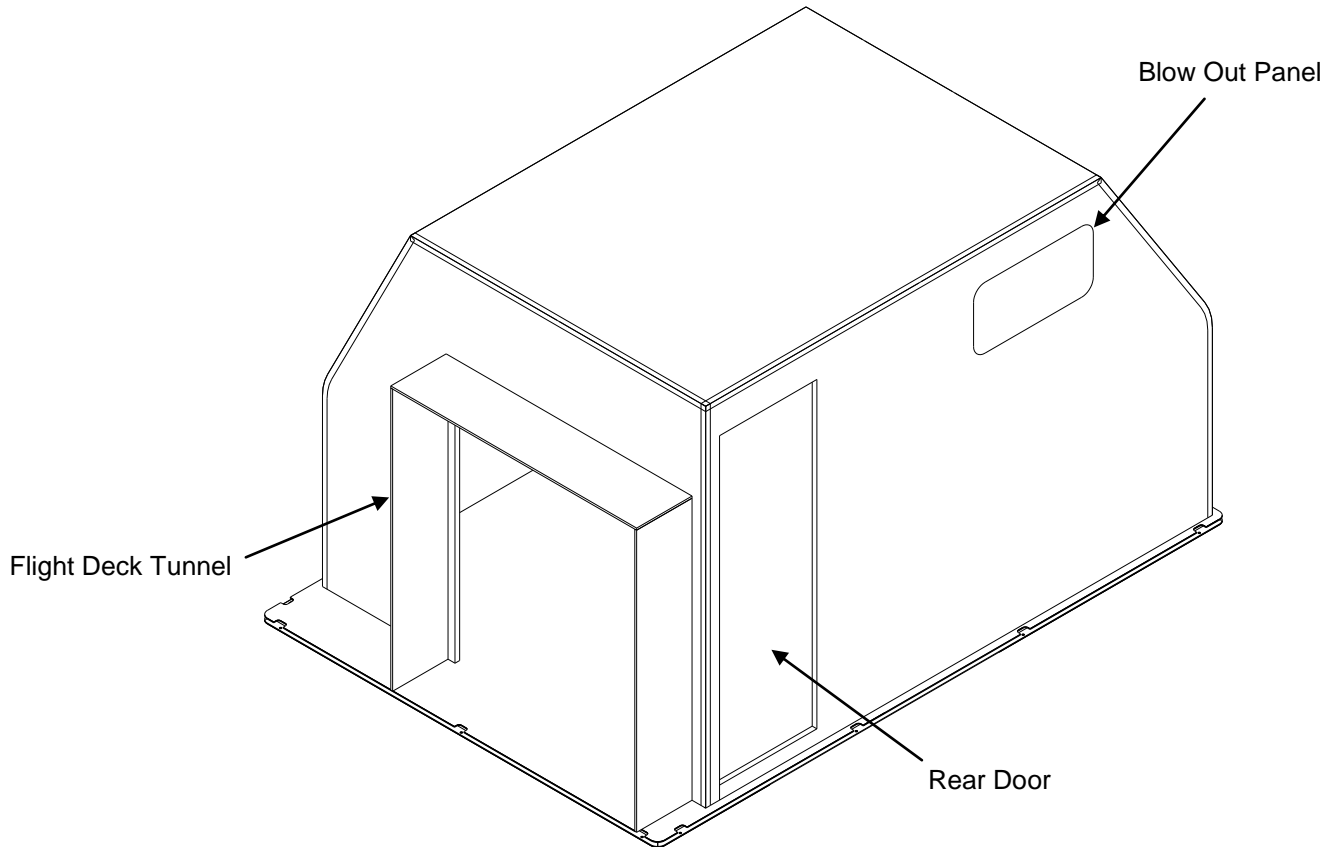
H. Blow-Out Panel

The Blow-Out Panel is located on the aft sidewall, above the sleeping surfaces (see figure 1, sheet 1). The Blow-Out Panel protects the Crew Rest Module from over pressurization.



CREW REST MODULE CMM

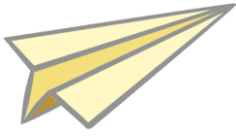
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CREW REST MODULE - COMPONENT LOCATION
FIGURE 1 (SHEET 1 OF 3)

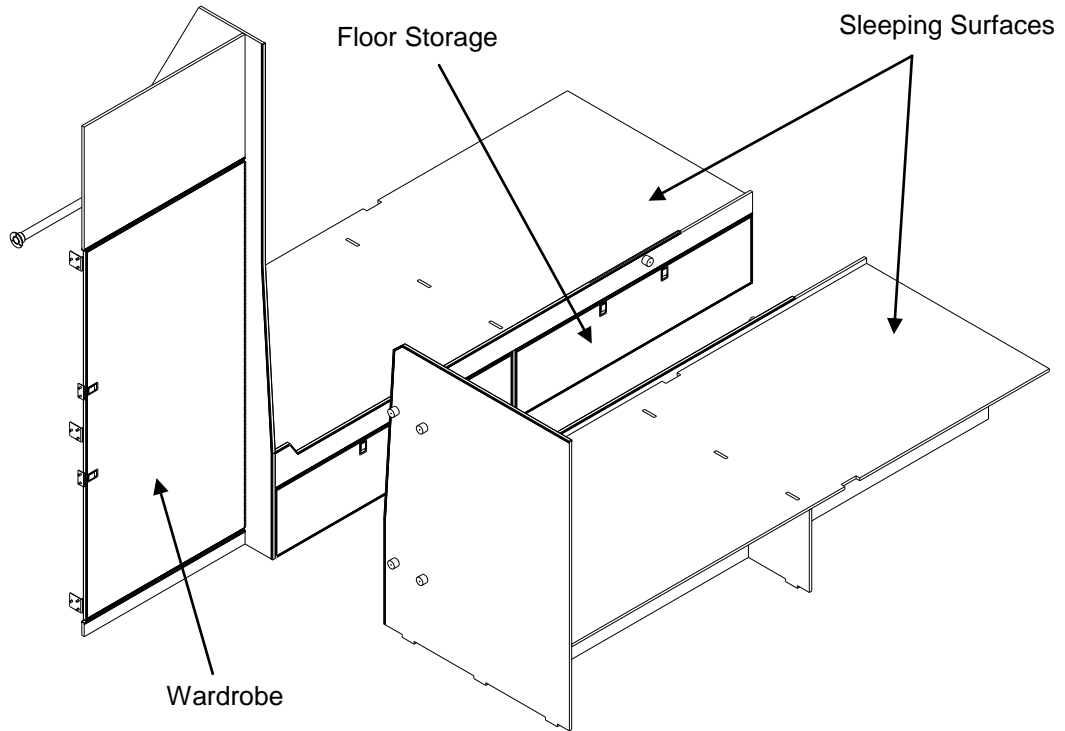
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CREW REST MODULE CMM

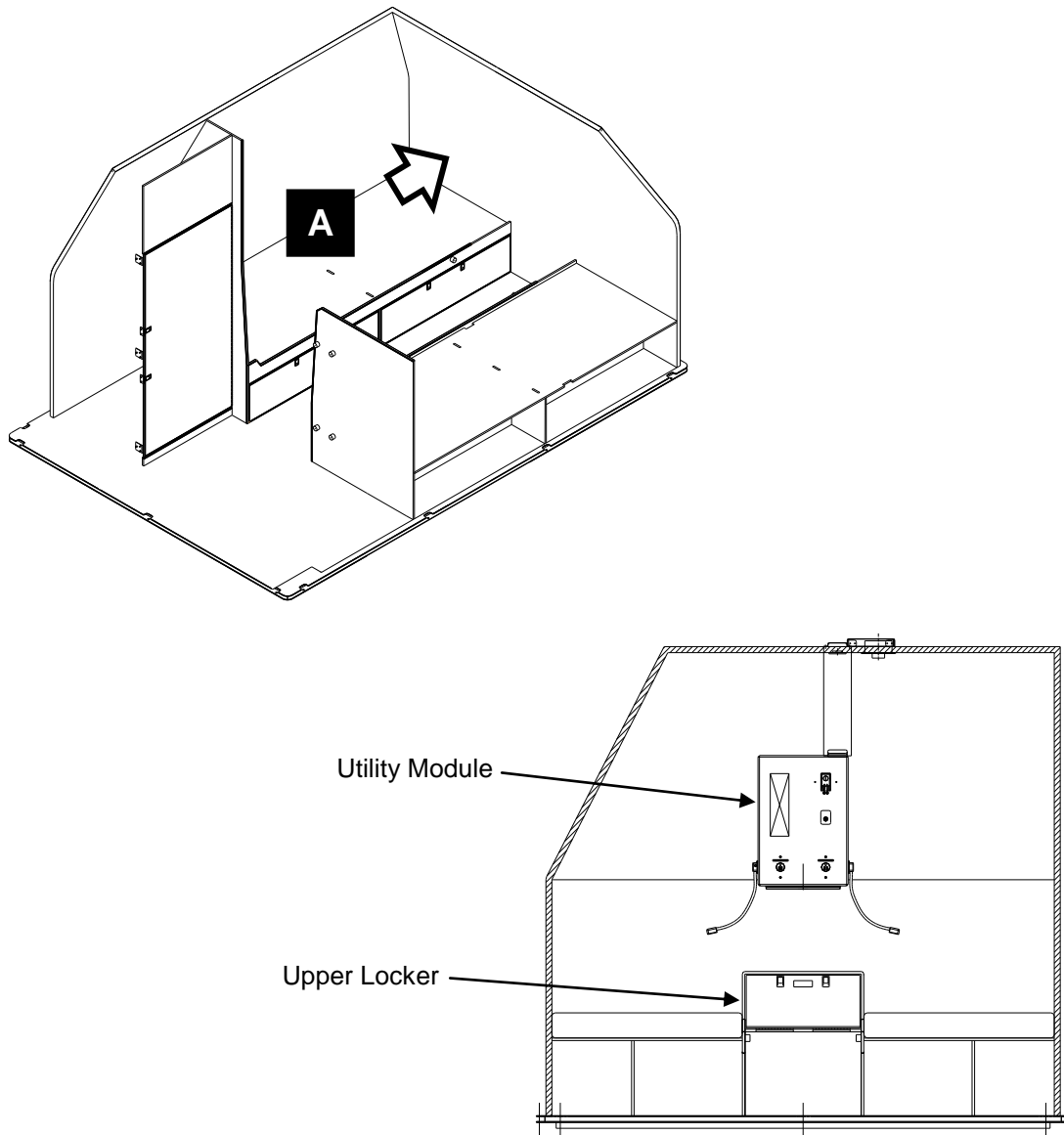
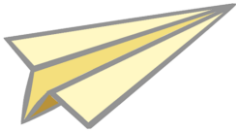
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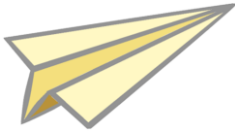
CREW REST MODULE - COMPONENT LOCATION
FIGURE 1 (SHEET 2 OF 3)

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CREW REST MODULE - COMPONENT LOCATION
FIGURE 1 (SHEET 3 OF 3)



3. Systems

A. Interphone

The Interphone Handset allows personnel in the Crew Rest Module to communicate with the Flight Crew. The Handset is located at the Utility Module (see figure 2, sheet 1).

The Interphone Handset connects to the Aircraft Interphone System via the Crew Rest Disconnect Panel.

B. Smoke Detector

The Smoke Detector is located on the ceiling panel of the Crew Rest Module (see figure 2, sheet 1). The Smoke Detector is connected to the Control Panel Smoke Detector located in the Flight Deck via the Crew Rest Disconnect Panel.

C. Heating

The main air distribution system combines the conditioned air from the air cooling packs (AMM 21-51-00/001). A mix manifold is located in the aft end of the forward cargo compartment. This mix manifold supplies the temperature controlled air to the flight deck (AMM 21-22-00/001), main deck cargo compartment (AMM 21-23-00/001), and the lavatory and galley (AMM 21-26-00/001). This source has been tapped to supply the Crew Rest Module and a Canister-type heater is installed to provide heating to the crew rest module.

D. Lighting

(1) Dome Lighting

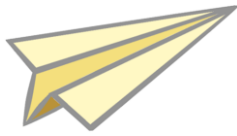
The Dome Lighting System provides general illumination in the Crew Rest Module. The Dome Light is controlled by the Entry Light Switch located at the Wardrobe Facia Panel and the Bed Light Switch located at the Utility Module.

The Dome Lighting System receives 28V DC from the Aircraft Crew Entry Light System via a circuit breaker at the Crew Rest Disconnect Panel.

(2) Reading Lights

Two flexible Reading Lights are located at the Utility Module (see figure 2, sheet 1). Each light is controlled by an ON / OFF switch on the Light assembly.

The Reading Lights receive 28V DC from the Aircraft Supernumerary Reading Light System via a circuit breaker at the Crew Rest Disconnect Panel.



(3) Return to Seat Sign

The Return to Seat Sign is located above the Flight Deck Doorway in the Crew Rest Module (see figure 3, sheet 1) and is controlled by the Flight Crew.

The Sign receives 28V DC from the Aircraft Passenger Sign Relay via a circuit breaker at the Crew Rest Disconnect Panel.

(4) Exit Sign

The Exit Sign is located above the Flight Deck Doorway in the Crew Rest Module (see figure 3, sheet 1). The Exit Sign is used to identify the location of the emergency exits as required by FAR/JAR 25.812. The Sign receives 6V DC from the Aircraft Emergency Lights Power Supply via a circuit breaker at the Crew Rest Disconnect Panel.

E. Power Outlets

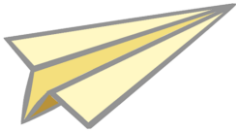
Two bedside power outlets are installed in the Crew Rest Module (see figure 2, sheet 1). Note each of the two power outlet sockets are rated for a maximum of 5A (derived from aircraft 115V.AC Ground Service Bus Bar see AMM 24-51-52).

F. Oxygen

An Automatic Oxygen Dropdown Unit is located in the Utility Module (see figure 2, sheet 1) to provide personnel in the Crew Rest Module with chemical generated oxygen for approximately 15 minutes in an emergency.

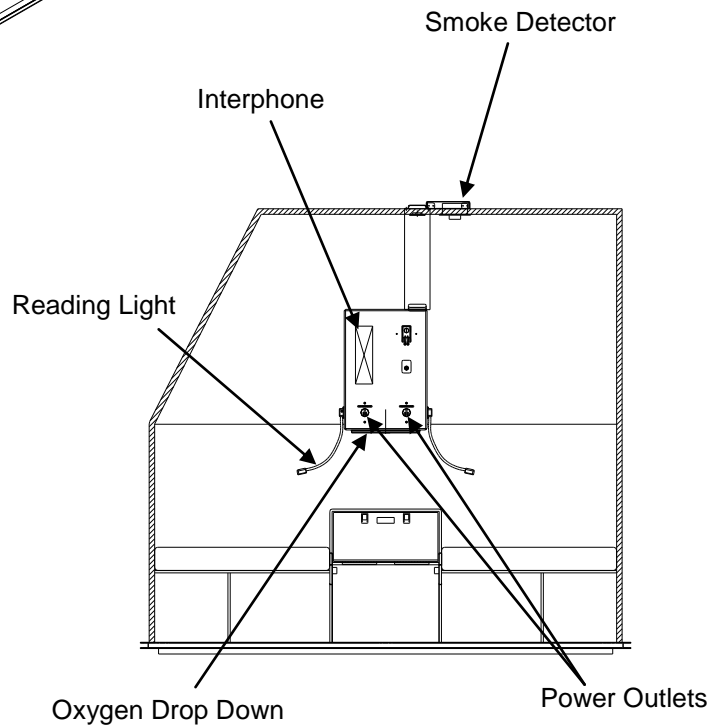
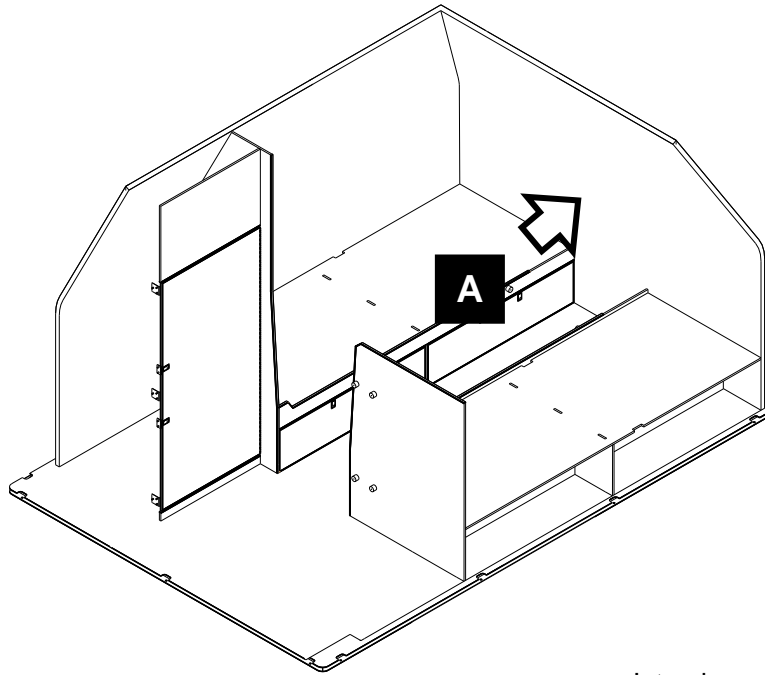
The Oxygen Unit is controlled by an Altitude Pressure Switch which will automatically actuate the Oxygen Unit if cabin altitude reaches 14,000ft.

The Altitude Pressure Switch receives 115V AC from the Aircraft Power Supply via a circuit breaker at the Crew Rest Disconnect Panel.



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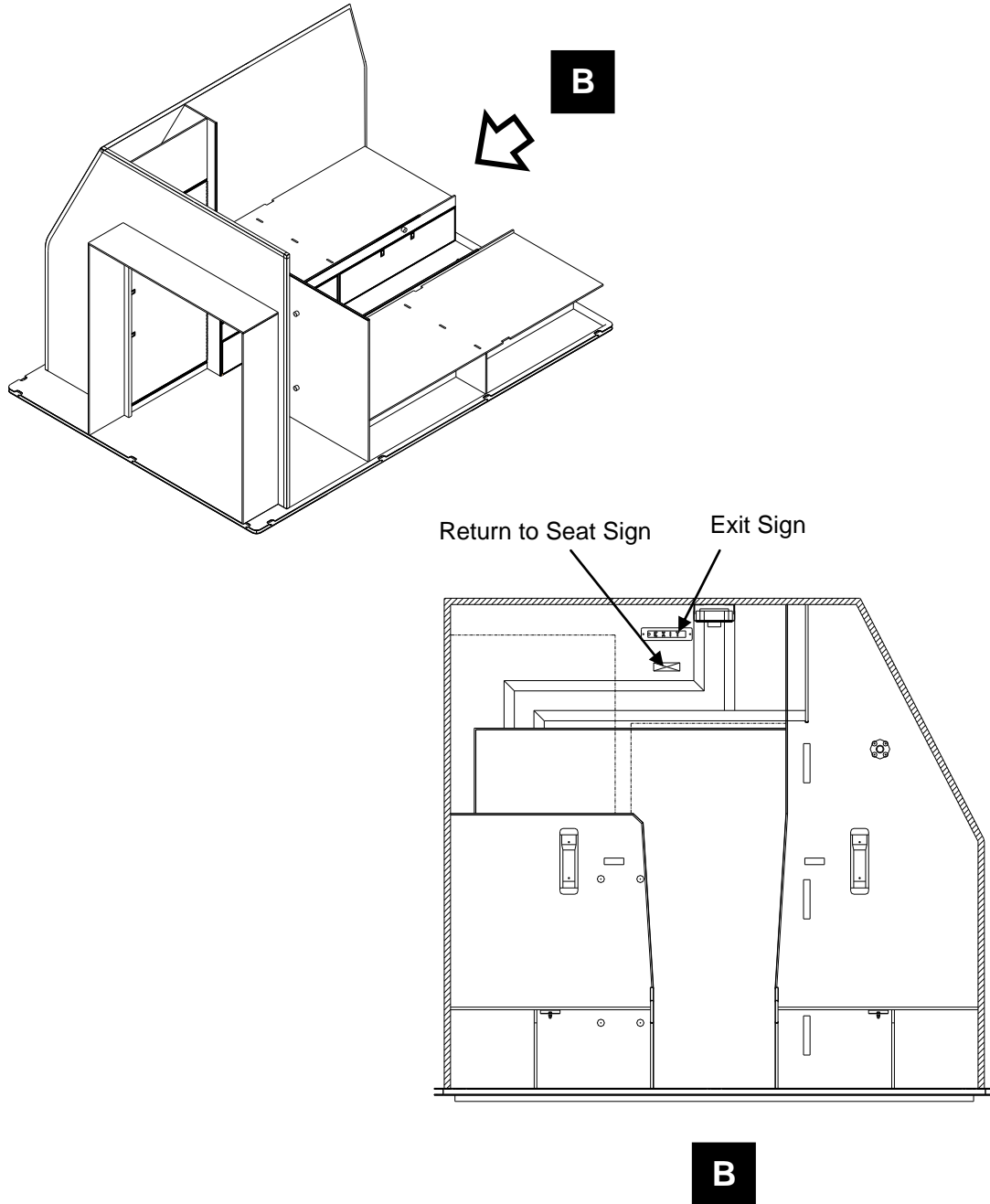
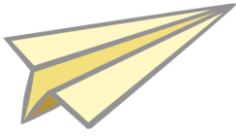


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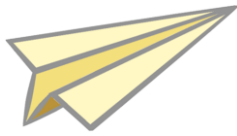
CREW REST MODULE - UTILITY MODULE
FIGURE 2 (SHEET 1 OF 1)

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CREW REST MODULE - RETURN TO SEAT AND EXIT SIGN
FIGURE 3 (SHEET 1 OF 1)



TESTING AND FAULT ISOLATION

1. General

A. Ground Checks

- (1) Referring to AMM 24-22-00/201; re-establish aircraft electrical power.

B. Bonding checks

- (1) Carry out Bonding checks from crew Rest Module sidewalls floor and roof to cargo compartment floor and record figure $<0.01\Omega$.

C. Function check

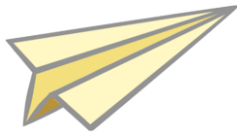
- (1) Ensure all circuit breakers on Crew Rest Module Disconnect Panel are set. The Crew Rest Module Disconnect Panel is located at the aft end of the 9G sidewall mounted on the closing panel installed by ATL MOD-11930-002.

D. Crew rest Module Location

- (1) Ensure five pallet lock mechanisms are engaged to restrain Crew Rest Module (pallet).

E. Smoke detector system

- (1) Carry out function checking of optical smoke detector system (TRA 72—20) referring to Siemens SAS, Component Maintenance Manual; Lavatory and Crew Rest Area Smoke Detection System KTA 2400 (includes P/No FTA 719-01 smoke detectors) 26-11-18:
- (2) The audible alarm (buzzer) has 3 pushbuttons: One for test of the entire system, one for audible alarm cancellation and one for reset.
- (3) Press the Built in Test Equipment push button and confirm the buzzer sounds and the indicator light flashes.
- (4) Press the audible alarm cancellation pushbutton and confirm the buzzer stops sounding.
- (5) Press the reset pushbutton.



F. Smoke test using smoke generator

- (1) Ensure that detector systems is working correctly; alarm triggered (90dB at 1 meter) and annunciator flash on the control panel located on flight deck.
- (2) Carry out smoke test referring to FAA AC 25-9A guidelines to test the Crew Rest Module tunnel seals by using suitable smoke generator in main cargo deck area close to the Crew Rest Module. Observe no smoke penetration in the flight deck area.

G. Interphone

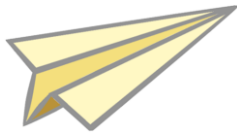
- (1) Ensure the Crew Rest Module handset is on the hook.
- (2) On the pilot's call panel M51, engage the FWD call switch.
- (3) At the Crew Rest Module station, push the PILOT button on the handset.
- (4) Ensure you hear a Hi chime in the flight compartment.
- (5) Ensure the FWD call light on the pilot's call panel comes on.
- (6) Push the RESET button on the Crew Rest Module handset.
- (7) Ensure the FWD call light on the pilots' call panel is extinguished.

H. Pilot's Call Panel Call Lamp Reset Test

- (1) At the Crew Rest Module station, push the PILOT button on the handset.
- (2) With the handset off the hook, make sure the FWD call light on the pilots' call panel extinguishes when pushed.
- (3) Replace the Crew Rest Module handset back on the hook.

I. Voice Quality Test

- (1) Engage the FLT INT switch on the pilot's call panel.
- (2) At each audio selector panel, push the INT MIC SELECTOR switch.
- (3) Set the volume control to a comfortable level.
- (4) From the Crew Rest Module station, push the PILOT call switch to speak with the pilots' station.



- (5) In the flight compartment, use a boom headset, and the PTT switch on each audio selector panel, to speak with the supernumerary station.
- (6) Ensure a clear voice between each audio selector panel and the Crew Rest Module station handset is heard.

J. Heating

- (1) Referring to AMM 32-09-02/201, Air/Ground System Relays it is necessary to operate air conditioning pack and simulate that the airplane is in air mode (air/ground relay energised).
- (2) Operate the air conditioning pack with the pack selector in AUTO position.
- (3) Referring to ATL wiring diagram Page 7 (ATL11930-804) confirm system circuit breakers are closed.
- (4) Ensure that conditioned air flows out of the air outlet branch in the crew rest module.

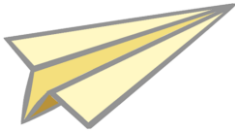
WARNING: DO THE DEACTIVATION PROCEDURE FOR THE SPOILERS OR MOVE ALL PERSONS AND EQUIPMENT AWAY FROM THE SPOILERS. THE SPOILERS CAN RETRACT QUICKLY AND CAUSE INJURY OR DAMAGE.

WARNING: MAKE SURE YOU DO THE AIR MODE SIMULATION CORRECTLY. IF THE PROCEDURE IS NOT DONE CORRECTLY, INJURY OR DAMAGE CAN OCCUR.

- (5) Refer to AMM 32-09-02/201 for Air Mode Procedure.
- (6) Switch crew rest heater switch ON.
- (7) Verify heat is present at the air conditioning outlet of the Crew Rest Module.
- (8) Switch crew rest heater switch OFF
- (9) Return aircraft to normal configuration; Air-conditioning system OFF, Air/Ground System to Ground.

K. Lighting – Passenger Return to Seat

- (1) Carry out operational check on Crew Rest Module return to seat by carrying out IAI Supplement to B767-300 Maintenance Manual; Task 33-24-00-712-035.



- (2) Ensure that Crew Rest Module return to seat sign illuminates in conjunction with Cockpit lavatory return to seat sign.

L. Lighting - Exit

- (1) An exit sign is installed in the Crew Rest Module. The emergency lights automatically give lighting and identify the exits, if the airplane has an electrical power failure. In this condition, the emergency lighting replaces the usual lighting.
- (2) Carry out operational check on Crew Rest Module exit sign by carrying out IAI Supplement to B767-300 Maintenance Manual; Task 33-51-00-715-001.

CAUTION: DO NOT LEAVE THE EMERGENCY LIGHTS ON FOR MORE THAN ONE MINUTE. TOO MUCH OPERATION CAN REMOVE CHARGE FROM THE BATTERIES.

- (3) Ensure that Crew Rest Module exit sign illuminates in conjunction with door exit sign.

M. Lighting - Dome

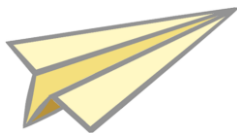
- (1) Ensure the following circuit breaker is set:

PANEL	CB	IDENT
P33	C9809	Crew Entry Light

- (2) In Crew Rest Module select entry dome light switch to ON. Ensure Dome light illuminates.
- (3) Select entry dome light switch to OFF. Ensure Dome light is extinguished.
- (4) In Crew Rest Module select bedside dome light switch to ON. Ensure Dome light illuminates.
- (5) Select bedside dome light switch to OFF. Ensure Dome light is extinguished.

N. Reading Lights

- (1) Carry out operational check on Crew Rest Module reading lights in conjunction with IAI Supplement to B767-300 Maintenance Manual; Task 33-22-01-735-054.
- (2) At each reading snake light, switch ON, ensure light illuminates.
- (3) At each reading snake light, switch OFF, ensure light extinguishes.



O. Power outlets

(1) Ensure the following circuit breakers are set:

PANEL	CB	IDENT
P6	C314	PASS SERVICE OUTLETS
W9000	C9012	POWER OUTLET

(2) Using Digital Volt Meter, take a reading from each power outlet to confirm 115V.AC is present.

(3) Pull and lock out circuit breakers set above.

P. Oxygen (drop out)

(1) The band surrounding each generator will change from white to black when oxygen has been generated. A black band is an indication that the generator is used and must be replaced.

(2) Referring to B/E Aerospace Emergency Oxygen Container CMM 35-21-73 dated April 30 1999 carry out Testing and Fault Isolation in accordance with procedure on Page 101.

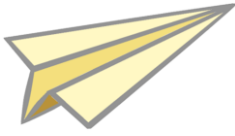
CAUTION: COMPLETELY READ AND THOROUGHLY UNDERSTAND THE ENTIRE TESTING AND FAULT ISOLATION SECTION. BECOME THOROUGHLY FAMILIAR WITH THE TEST SEQUENCES AND THEIR INTERACTIVE CORRELATION BEFORE PERFORMING ANY TESTS. TEST ALTITUDE PRESSURE SWITCH P/NO 214C40-1-75 BY CARRYING OUT THE FOLLOWING:

(3) Referring to B/E Aerospace Emergency Oxygen Container CMM 35-21-73 page 102 Para B, confirm the test lever is set by depressing the right hand side of the test lever on the door assembly until the over-centre spring retains the lever at 90° to the door surface. The test lever should remain in this perpendicular position until manually reset.

(4) With the door assembly rotated to the “test” position the test lever decal must be readable.

(5) Push the test lever back to its normal position. The spring should hold the lever in this position.

CAUTION: NO RESTRICTION SHOULD BE OBSERVED DURING THESE STEPS.



REFERRING TO AMM 35-21-00 PAGE 503, PARA G; CARRY OUT SUBTASK 35-21-00-495-056 FOR ALTITUDE PRESSURE SWITCH P/NO 214C40-1-75.

NOTE: REPLACE BOEING PROCEDURE “THE RETAINERS AND MASKING TAPE MUST STOP THE DOORS BEFORE THEY OPEN FULLY AND LET THE OXYGEN MASKS OUT” WITH B/E AEROSPACE TEST LEVER PROCEDURE ABOVE.

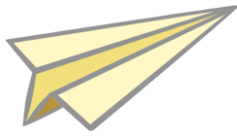
Q. Oxygen (drop out)

(1) The basic cylinder assembly contains these parts:

- (a) high pressure oxygen cylinder
- (b) constant flow pressure regulator
- (c) pressure gage
- (d) safety plug
- (e) charging valve
- (f) relief valve
- (g) ON-OFF valve and outlet assembly

(2) Referring to AMM 35-31-01 page 601; carry out portable oxygen cylinder inspection / check.

R. Prepare the aircraft for return to service.



INSPECTION/CHECK

1. General

A. Rear Door

- (1) Check the functionality of Rear Door located on the AFT sidewall of the Crew Rest Module, replace if necessary.
- (2) Ensure the Rubber Seal surrounding the Rear Door located on the AFT sidewall of the Crew Rest Module prevents the penetration of smoke through from the Cargo Bay into the Crew Rest Module and vice versa.

B. Wardrobe

- (1) Check the functionality of the Wardrobe Door located in the AFT of the Wardrobe located in the LH corner of the FWD sidewall of the Crew Rest Module, replace if necessary.

C. Sleeping Surfaces

- (1) Inspect the condition of the seatbelts located above both Sleeping Surfaces in the Crew Rest Module, check for wear and damage and if found replace the Seatbelt.

D. Utility Module

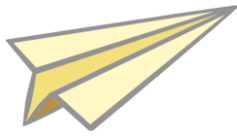
- (1) Perform checks of the Emergency Oxygen Container according to 35-21-73 P/N: G1R123-XX CMM.

E. Smoke Detector

- (1) Perform checks of the Smoke Detector System according to 26-11-18 CMM.

F. Wiring

- (1) Inspect the general condition of the wiring ensuring it shows no signs damage.



ASSEMBLY

1. General

- A. This section covers the installation and assembly procedures for the ATL11930-003 Crew Rest Module.
- B. Refer to the illustrated Parts List (IPL) for aid during installation and assembly.

2. Installation To Aircraft

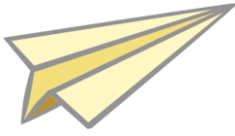
- A. Referring to AMM 24-22-00/201; isolate aircraft electrical power.
- B. Referring to IAI Supplement to B767-300 Maintenance Manual, 371-00-00-C0467 25-50-00; prepare aircraft for acceptance of cargo pallet in Main Deck Cargo Compartment, 1A location.
- C. Prepare to load the Crew Rest Module.

CAUTION: THE CREW REST MODULE MUST BE PROPERLY ORIENTATED ON THE LOADING EQUIPMENT PRIOR TO AIRCRAFT ENTRANCE. DO NOT ROTATE OR RE-ORIENTATE THE CREW REST MODULE INSIDE AIRCRAFT AS THIS MAY DAMAGE THE AIRCRAFT STRUCTURE.

- D. Referring to Baggage Cargo Loading Manual D633T430 for general guidance, carefully manoeuvre Crew Rest Module (pallet) onto Main Deck Cargo Compartment and locate at 1A position with Crew Rest Module tunnel aligned with access door to Flight deck area.
- E. Using pallet locks at STA 368 (5 off) secure and Restrain Crew Rest Module (pallet).
- F. Referring to ATL11930-003; Smoke seal the Flight Deck Doorway using Velcro seal P/No ATL11930-003/101.
- G. Referring to ATL11930-007; Remove caps from two electrical disconnects on airframe disconnect panel. Note Crew Rest Module airframe disconnect panel is located at the aft end of the 9G sidewall mounted on the closing panel.
- H. Referring to ATL11930-007; Remove cap from Hose fitting on airframe disconnect panel in preparation for the Crew Rest Module installation.
- I. Disconnect two electrical harnesses from stowage points on Crew Rest Module in preparation to connect to airframe mounted disconnect panel.

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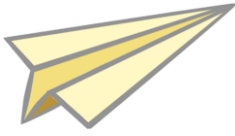
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- J. Disconnect Hose fitting from stowage point on Crew Rest Module in preparation to connect to airframe mounted disconnect panel.
- K. Connect from Crew Rest Module the two electrical harnesses to the airframe mounted Crew Rest Module disconnect panel.
- L. Locate Hose fitting from Crew Rest Module to airframe mounted disconnect panel. Use Hose Clip P/No NAS1922-0200-1 to secure.
- M. Perform a foreign object inspection in the modification working areas and check for integrity of disturbed units, wires and panels.
- N. Prepare the aircraft to perform operational checks on the Crew Rest Module system in accordance with paragraph 6.

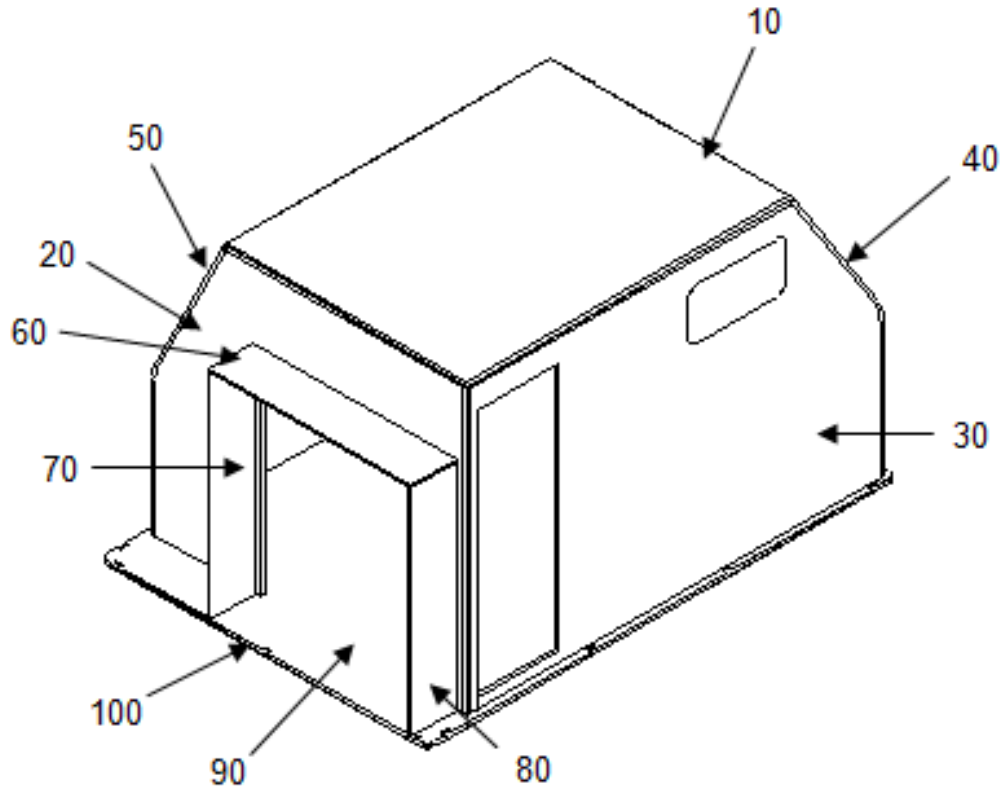
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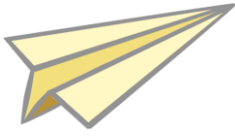


CREW REST MODULE
Figure 1 (SHEET 1 OF 17)

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FIG. ITEM	PART NUMBER	AIRLINE STOCK NO.	1 2 3 4 5 6 7	NOMENCLATURE	EFFECT		UNITS PER ASSY
					FROM	TO	
1	ATL 11930-001			CREW REST MODULE	ALL	ALL	
10	ATL11930-101/1			. ROOF PANEL	ALL	ALL	1
20	ATL11930-101/3			. LH SIDE PANEL	ALL	ALL	1
30	ATL11930-101/5			. AFT SIDE PANEL	ALL	ALL	1
40	ATL11930-101/7			. RH SIDE PANEL	ALL	ALL	1
50	ATL11930-101/9			. FWD SIDE PANEL	ALL	ALL	1
60	ATL11930-101/11			. UPPER SCREEN	ALL	ALL	1
70	ATL11930-101/13			. FWD SCREEN	ALL	ALL	1
80	ATL11930-101/15			. AFT SCREEN	ALL	ALL	1
90	ATL11930-105			. FLOOR PANEL ASSEMBLY	ALL	ALL	1
100	ATL11930-105/1			. FLOOR PANEL	ALL	ALL	1

- ITEM NOT ILLUSTRATED

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