CHAPTER

35

OXYGEN

MD-80
AIRCRAFT MAINTENANCE MANUAL

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GENERAL - DESCRIPTION AND OPERATION

1. Description

A. There is an independent, pressurized gaseous oxygen system for the crew, a modular-type chemical oxygen system for the passengers, and portable oxygen units for the crew and cabin attendants.

B. The crew oxygen system provides adequate oxygen for the crew to maintain sustained flight if cabin decompression should occur. In addition, the oxygen system protects the crew from harmful effects of smoke and gases. The crew oxygen system is an automatic, pressure-breathing, diluter-demand system. One high pressure oxygen cylinder supplies oxygen through a regulator valve and low-pressure distribution lines to a quick-disconnect fitting at each flight compartment station. Each flight compartment station is provided with a diluter-demand regulator, a quick-don oxygen mask, and smoke goggles. (Figure 1 or Figure 2 or Figure 3)

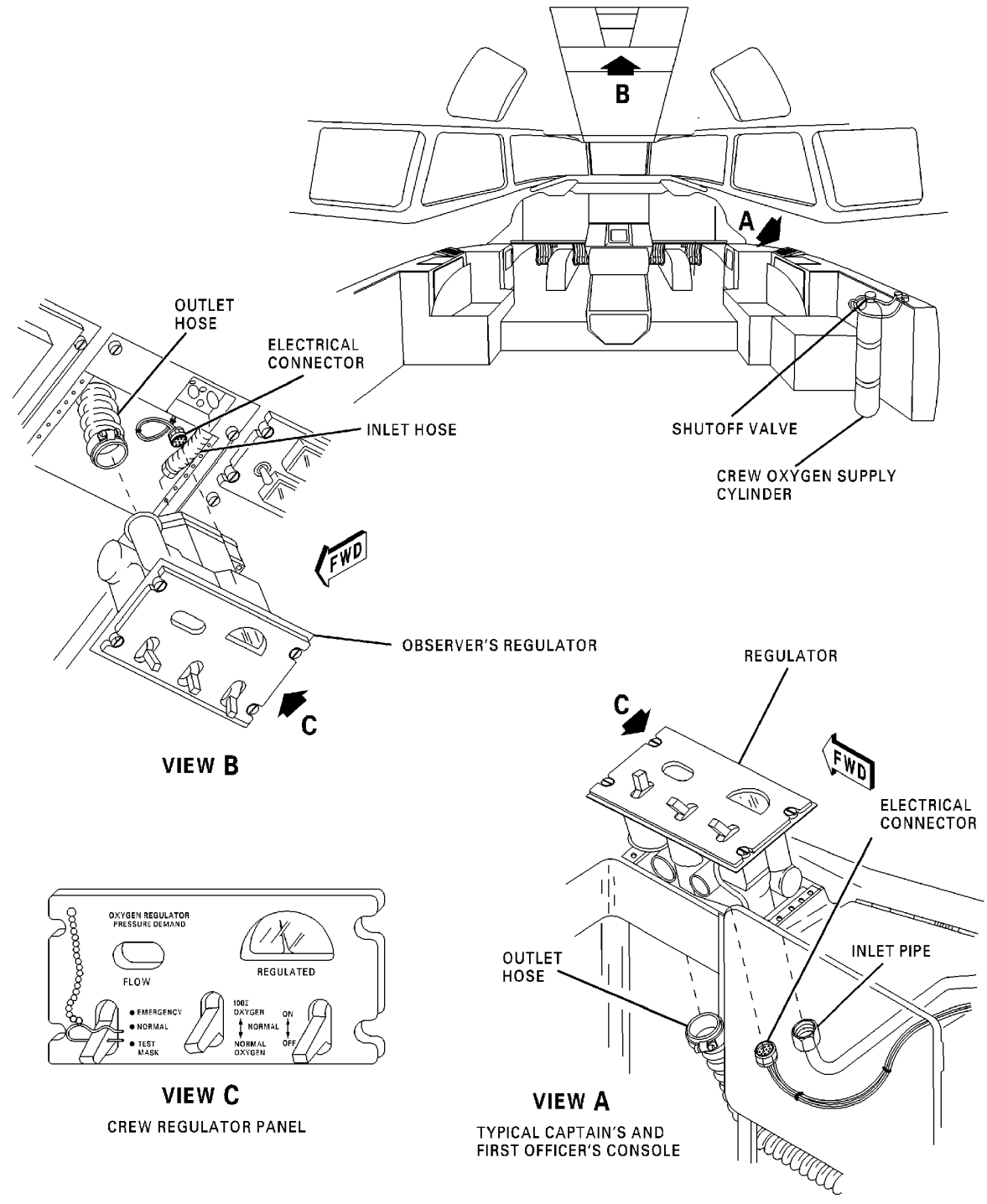
C. Chemical oxygen generating and dispensing units are provided in modular form for the passenger oxygen system. Each module consists of either 1, 2, 3, or 4 oxygen masks and a sodium chlorate ($NaC10_3$) oxygen generator of sufficient capacity to supply oxygen to the mask(s) for a period of 15 minutes. The modules are located in the environmental over-head utility panel of each seat row, lavatories, bassinet locations on applicable aircraft, and cabin attendants' stations. (Figure 4 or Figure 5)

D. Portable high-pressure oxygen units are provided throughout the cabin for the cabin attendants' use while moving about the cabin during low cabin pressure emergencies.

E. A high-pressure portable oxygen unit is provided for crew use while moving about the flight compartment during low cabin pressure emergencies.

WJE 415-427, 429, 861-866, 868, 869, 871, 872, 891

F. The protective breathing equipment (PBE) is designed to provide respiratory and eye protection to the user. The PBE is self-contained and provides 15 minutes of oxygen. It is intended for one time use and is not rechargeable. One (PBE) is located in the emergency equipment drawer in the forward right stowage unit and one in the emergency equipment drawer in the aft right coatroom/ stowage unit.



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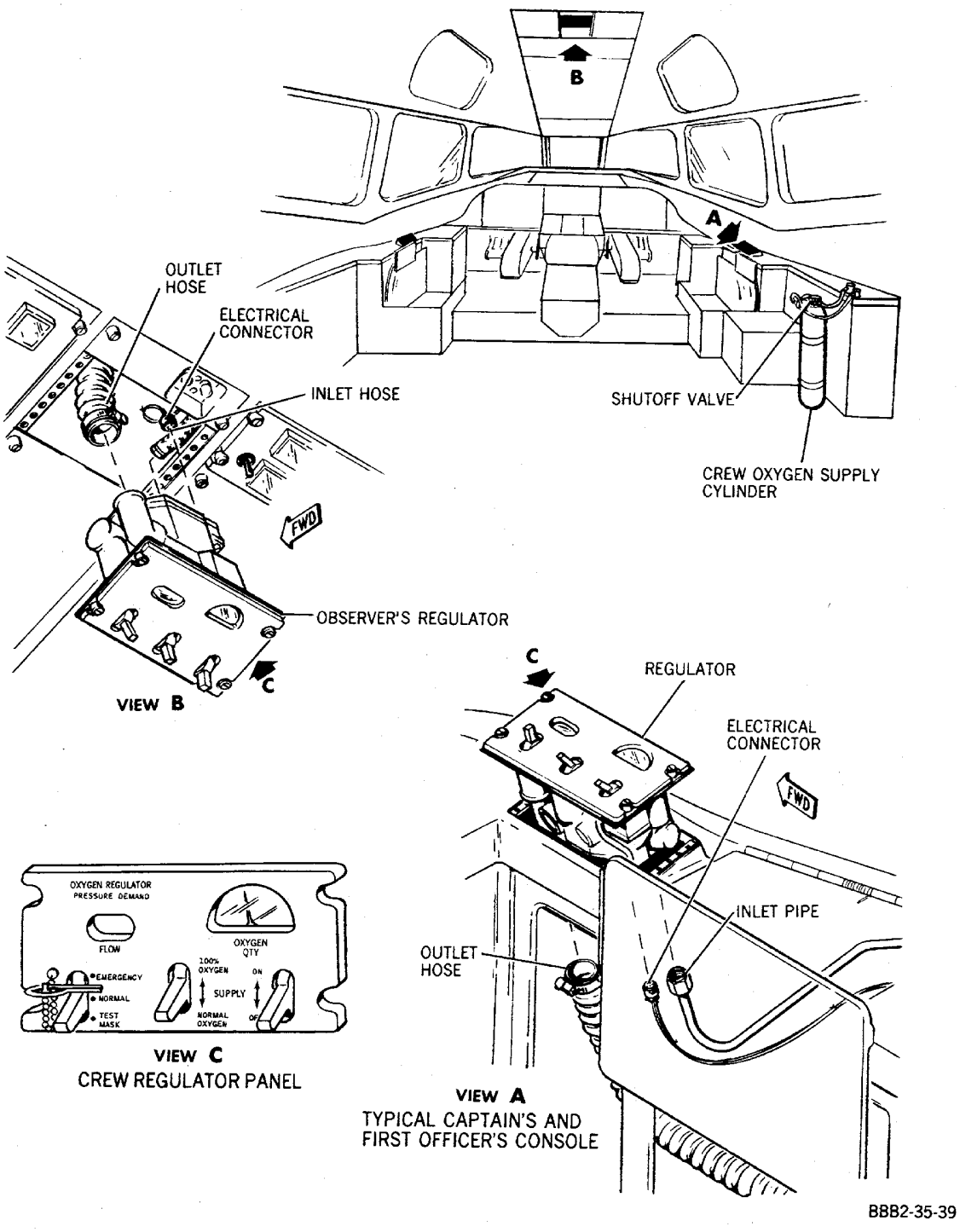
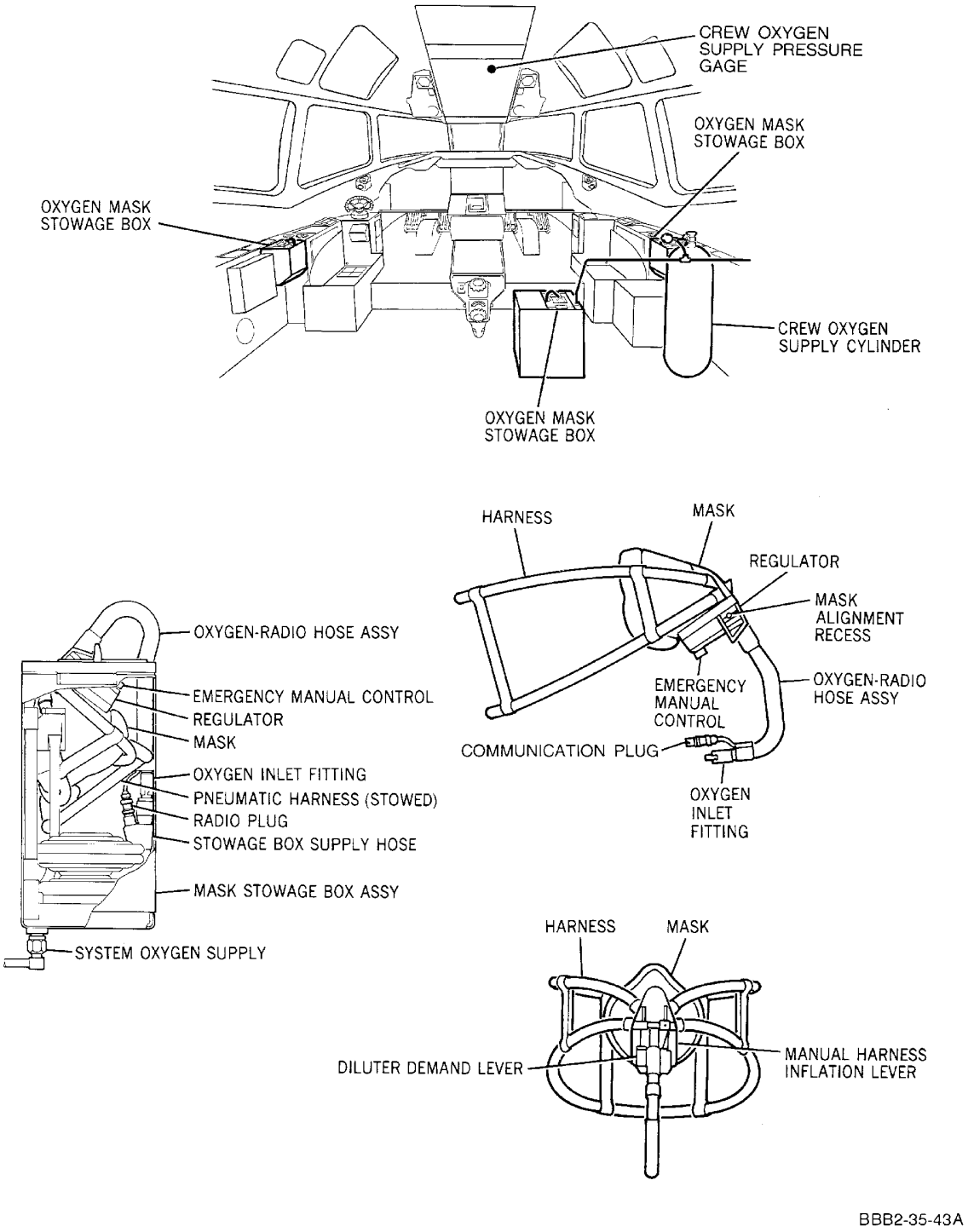
Crew Oxygen System Components -- Location
Figure 1/35-00-00-990-803

EFFECTIVITY
WJE 405, 409, 410, 873-881, 883, 884, 886, 887, 892, 893

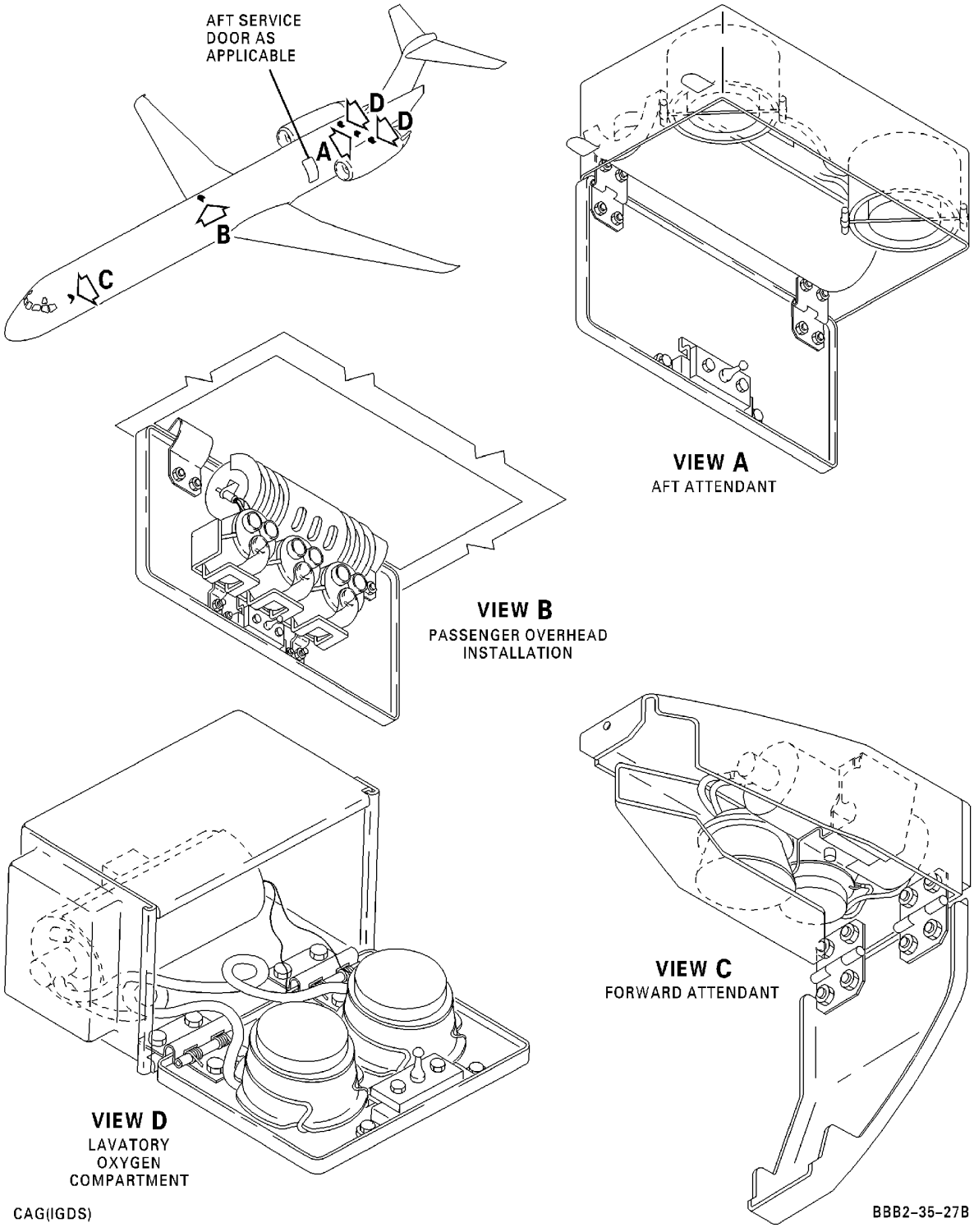


Crew Oxygen System Components -- Location
Figure 2/35-00-00-990-804

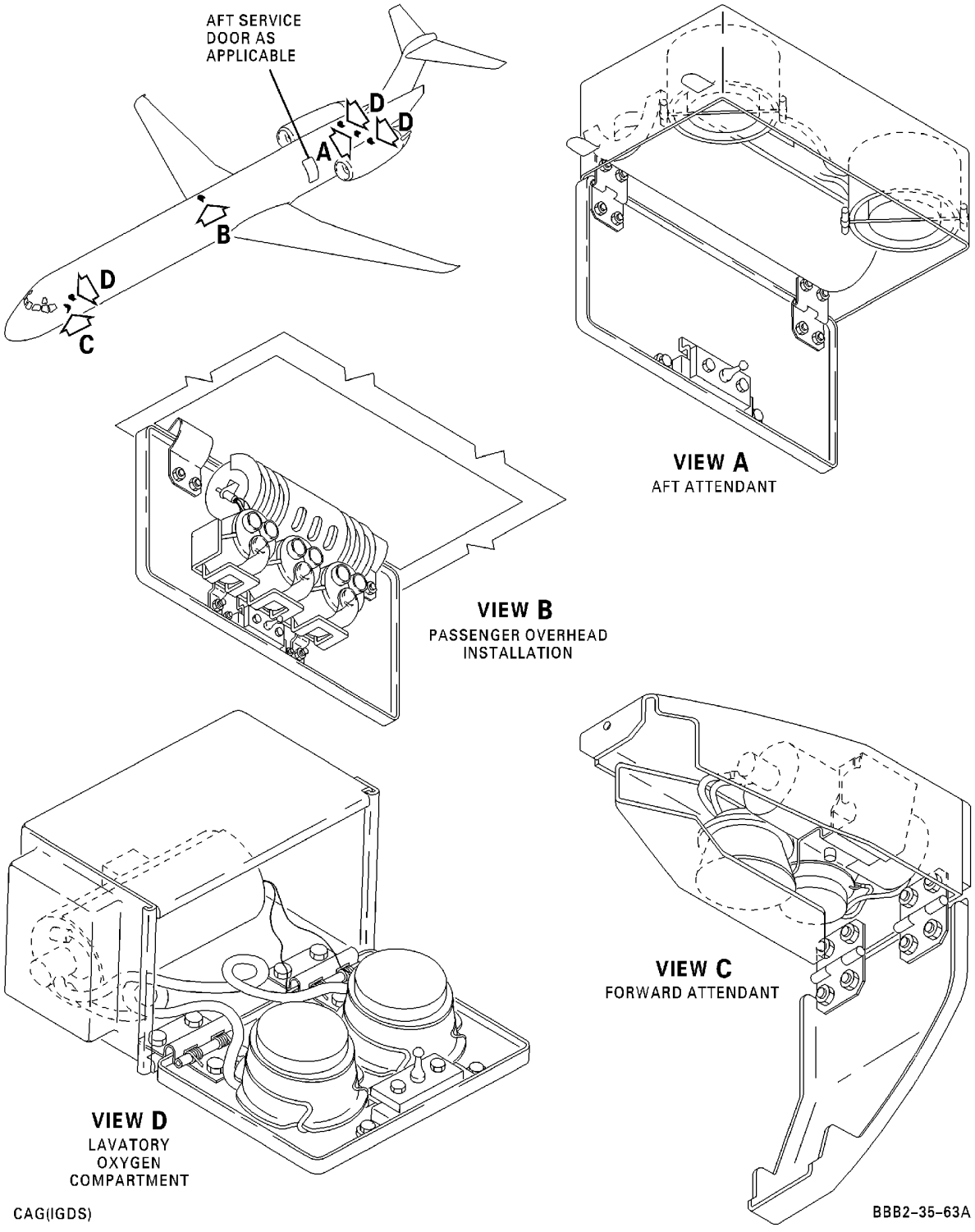


Crew Oxygen System Components -- Location
Figure 3/35-00-00-990-805

EFFECTIVITY
WJE 415-427, 429, 861-866, 868, 869, 871, 872, 891



Passenger and Attendant Oxygen Modules -- Location
Figure 4/35-00-00-990-808



Passenger and Attendant Oxygen Modules -- Location
Figure 5/35-00-00-990-809

GENERAL - DESCRIPTION AND OPERATION

1. General

A. There is an independent, pressurized gaseous oxygen system for the crew, a modular-type chemical oxygen system for the passengers, a first aid gaseous oxygen system for passengers requiring oxygen during flight, and portable oxygen units for the crew and cabin attendants.

2. Crew

A. The crew oxygen system provides adequate oxygen for the crew to maintain sustained flight if cabin decompression should occur. In addition, the oxygen system protects the crew from harmful effects of smoke and gases. The crew oxygen system is an automatic, pressure-breathing, diluter-demand system. One high pressure oxygen cylinder supplies oxygen through a regulator valve and low-pressure distribution lines to a quick-disconnect fitting at each flight compartment station. Each flight compartment station is provided with a diluter-demand regulator, a quick-don oxygen mask, and smoke goggles. For a complete description and operation of crew oxygen system refer to CREW OXYGEN SYSTEM, SUBJECT 35-10-00, Page 1. (Figure 1)

3. Passenger

A. Chemical oxygen generating and dispensing units are provided in modular form for the passenger oxygen system. Each module consists of either 1, 2, or 3 oxygen masks and a sodium chlorate ($NaC10_3$) oxygen generator of sufficient capacity to supply oxygen to the mask(s) for a period of 15 minutes. The modules are located in the environmental over-head utility panel of each seat row, lavatories, bassinet locations on applicable aircraft, and cabin attendants' stations. For a complete description of passenger oxygen system, refer to PASSENGER - DESCRIPTION AND OPERATION, PAGEBLOCK 35-20-00/001 Config 1. (Figure 2)

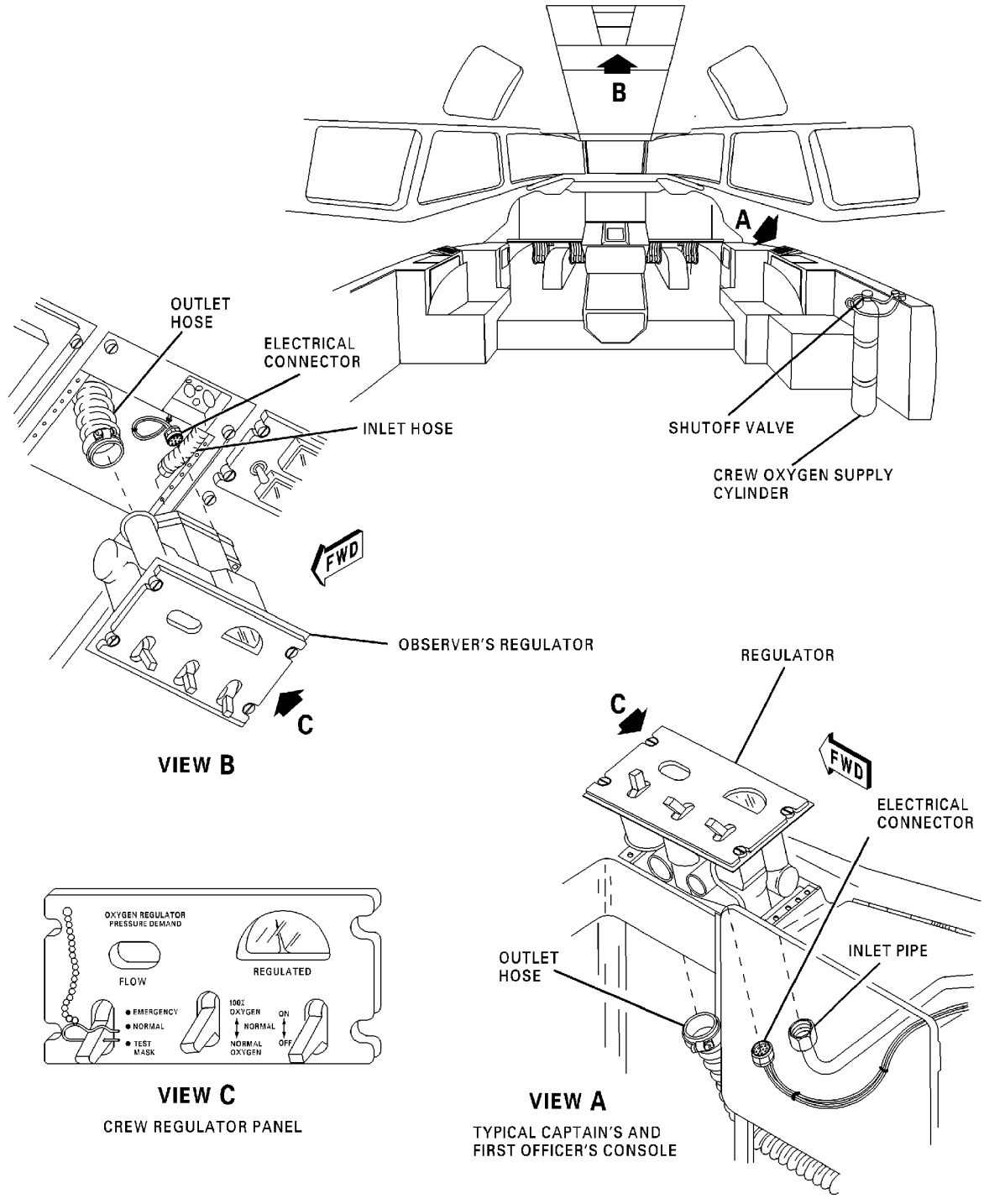
4. First Aid Oxygen

A. The first aid oxygen system is located in the passenger compartment. This system is used by the flight attendants to administer oxygen to passengers exhibiting symptoms of hypoxia or other respiratory deficiencies. This aid is available at specific locations from a gaseous, on-demand source. For a complete description and operation of first aid oxygen, refer to FIRST AID OXYGEN - DESCRIPTION AND OPERATION, PAGEBLOCK 35-25-00/001.

5. Portable

A. Portable high-pressure oxygen units are provided throughout the cabin for the cabin attendants' use while moving about the cabin during low cabin pressure emergencies. For a complete description and operation of portable (attendants/first aid), refer to PORTABLE OXYGEN, SUBJECT 35-30-00, Page 1.

B. A high-pressure portable oxygen unit is provided for crew use while moving about the flight compartment during low cabin pressure emergencies. For a complete description and operation of portable (crew), refer to PORTABLE OXYGEN, SUBJECT 35-30-00, Page 1.



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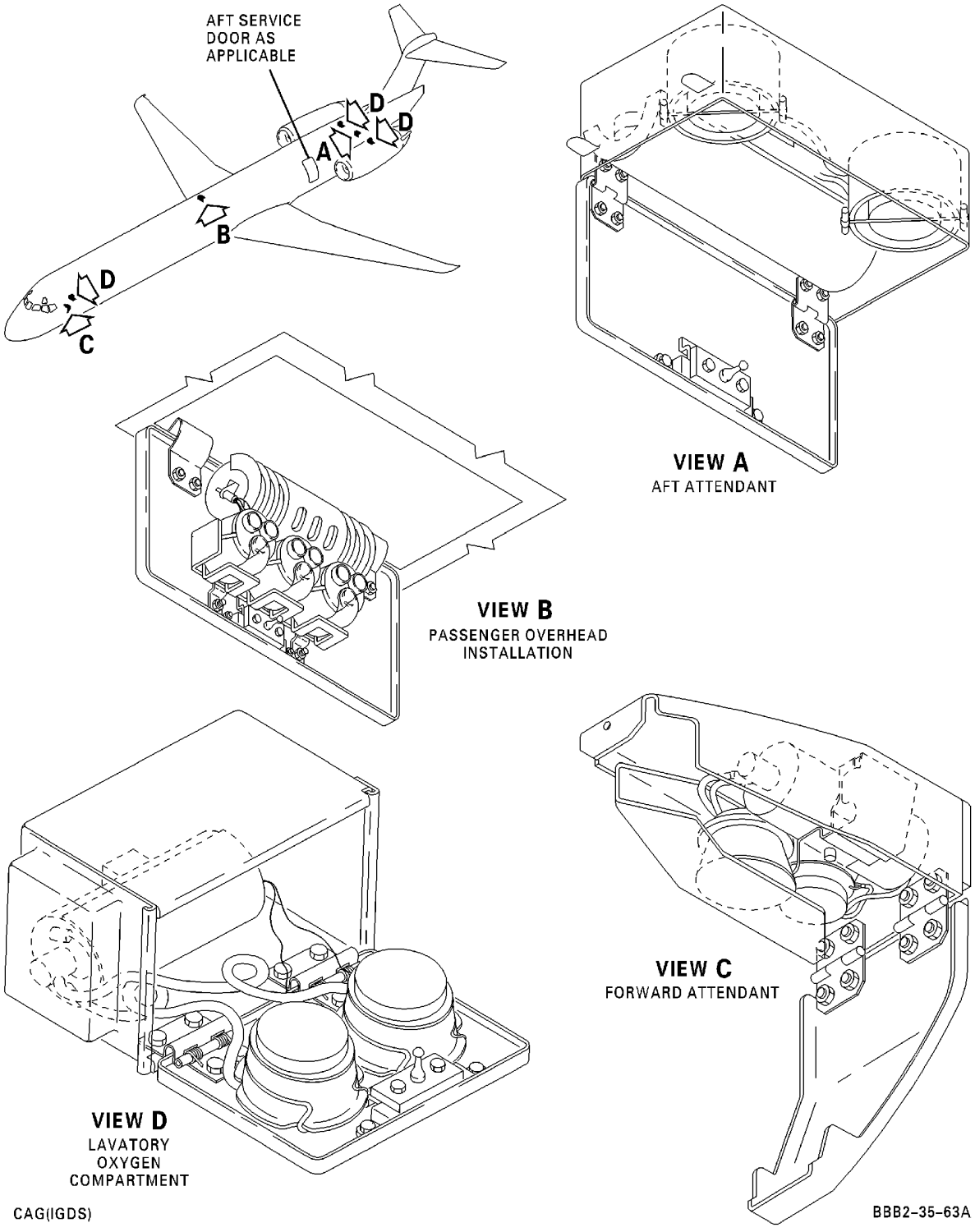
Crew Oxygen System Components -- Location
Figure 1/35-00-00-990-814



Passenger and Attendant Oxygen Modules -- Location
Figure 2/35-00-00-990-816

GENERAL - MAINTENANCE PRACTICES

1. General Maintenance Features

A. A crew oxygen mask, breathing regulator, and flexible pressure hose with quick-disconnect fitting is considered as a set. There is a set located at each flight crew station. All sets are identical and interchangeable.

B. The crew oxygen cylinder, with pressure gage and shutoff valve, is considered one unit and is located in the aft right corner of the flight compartment.

C. A crew cylinder regulator valve is attached to the oxygen cylinder shutoff valve.

D. A passenger oxygen generator and its attached mask(s) are referred to as a module. The modules are located in environ-mental panel located under the overhead luggage rack of each seat row, lavatories in a compartment, and cabin attendant stations. To open a module door for maintenance purposes, insert a small round pin shaped object through the hole in the module door and push the release lever.

2. Safety and Operation Precautions

A. Safety Precautions

WARNING: MAKE SURE ONLY APPROVED PERSONS DO SERVICING OR TOUCH THE HIGH-PRESSURE OXYGEN CYLINDERS. INCORRECT PROCEDURES CAN CAUSE INJURY TO PERSONS AND DAMAGE TO EQUIPMENT.

WARNING: MAKE SURE YOUR HANDS, TOOLS, EQUIPMENT, AND CLOTHING USED IN WORK AREA DO NOT HAVE DIRT, OIL, OR GREASE ON THEM. DO NOT LET THIS CONTAMINATION GO INTO OXYGEN SYSTEM. IF THIS CONTAMINATION MIXES WITH OXYGEN GAS, THEY CAN IGNITE. INJURY TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

WARNING: WHENEVER OXYGEN COMPARTMENT DOOR IS OPENED TO PERFORM MAINTENANCE ACTION ON OXYGEN EQUIPMENT, THAT OXYGEN COMPARTMENT DOOR MUST BE FUNCTIONED AFTERWARD (EITHER ELECTRICALLY OR MANUALLY) TO ASSURE IT WILL OPEN FREELY. CHECK THAT FORWARD CABIN ATTENDANT OXYGEN COMPARTMENT DOOR OPENS FREELY TO APPROXIMATELY 90 DEGREE ANGLE WITH 0.030-INCH (0.762 MM) MINIMUM CLEARANCE BETWEEN DOOR AND ALL ADJACENT STRUCTURES. (PAGEBLOCK 23-30-00/201 CONFIG 1)

WARNING: HANDLE OXYGEN CYLINDERS WITH CARE. DO NOT RELEASE HIGH-PRESSURE OXYGEN FROM CYLINDERS UNLESS REGULATOR VALVE IS INSTALLED. SUDDEN RELEASE OF OXYGEN UNDER PRESSURE MIGHT CAUSE EXPLOSION OR FIRE, OR CAUSE CYLINDER TO BECOME DANGEROUS UNCONTROLLABLE OBJECT. ENSURE THAT ALL CYLINDER COMPONENTS ARE FREE OF DIRT, OIL, OR GREASE, WHICH MIGHT CAUSE EXPLOSION OR FIRE.

WARNING: PRIOR TO DISCONNECTING ANY FITTINGS OR CONNECTIONS, CLOSE CYLINDER SHUTOFF VALVE AND BLEED PRESSURE FROM SYSTEM.

WARNING: DO NOT USE GREASE OR OIL TO LUBRICATE PASSENGER OXYGEN MODULE DOOR HINGES OR LATCHING MECHANISM.

WARNING: BE VERY CAREFUL WHEN YOU MOVE OXYGEN GENERATOR TO PREVENT ACCIDENTAL REMOVAL OF FIRING PIN. LIVE OXYGEN GENERATORS CONTAIN EXPLOSIVE SOLID CHEMICALS. WHEN GENERATOR IS FIRED, CASE TEMPERATURE CAN BECOME 500°F (240°C). IF GENERATOR FIRES, IMMEDIATELY PUT GENERATOR ON SURFACE THAT WILL NOT BURN. SERIOUS INJURIES CAN OCCUR IF CASE IS TOUCHED.

WARNING: PRIOR TO REMOVAL OF UNEXPENDED OXYGEN GENERATOR, INSTALL SHIPPING CAP OVER FIRING PIN TO PREVENT INADVERTENT INITIATION OF GENERATOR.

WARNING: ON INSTALLATION OF OXYGEN GENERATOR, MAKE SURE SHIPPING CAP IS REMOVED FROM FIRING PIN PRIOR TO CLOSING OXYGEN MODULE DOOR.

WARNING: ASBESTOS IS AN AGENT THAT IS CARCINOGENIC. MAKE SURE ALL PERSONS OBEY ALL OF THE PRECAUTIONS WHEN ASBESTOS IS USED.

- DO NOT GET ASBESTOS IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES.
- DO NOT BREATHE THE ASBESTOS CONTAMINATION MATERIAL.

(WARNING PRECEDES)

WARNING: OXYGEN CANISTER CONTAINS BARIUM OXIDE. PRIOR TO REMOVAL OF EXPENDED OXYGEN CANISTER, MAKE SURE ALL PERSONS OBEY ALL PRECAUTIONS WHEN BARIUM OXIDE IS USED.

WARNING: BARIUM OXIDE IS AN AGENT THAT IS POISONOUS, AN IRRITANT, AND CORROSIVE. MAKE SURE ALL PERSONS OBEY THE PRECAUTIONS WHEN BARIUM OXIDE IS USED.

- DO NOT USE IN AREAS WHERE THERE IS HIGH HEAT, SPARKS, OR FLAMES.
- USE IN AN AREA OPEN TO THE AIR.
- CLOSE THE CONTAINER WHEN NOT USED.
- DO NOT GET BARIUM OXIDE IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES.
- DO NOT BREATHE THE GAS.

WARNING: REFER TO THE APPLICABLE MANUFACTURER'S OR SUPPLIER'S MSDS FOR:

- MORE PRECAUTIONARY DATA
- APPROVED SAFETY EQUIPMENT
- EMERGENCY MEDICAL AID.

TALK WITH THE LOCAL SAFETY DEPARTMENT OR AUTHORITIES FOR THE PROCEDURES TO DISCARD THIS HAZARDOUS AGENT.

WARNING: LEAK TEST BUBBLE FLUID IS AN AGENT THAT IS AN IRRITANT. MAKE SURE ALL PERSONS OBEY THE PRECAUTIONS WHEN LEAK TEST BUBBLE FLUID IS USED.

- USE IN AN AREA OPEN TO THE AIR.
- CLOSE THE CONTAINER WHEN NOT USED.
- DO NOT GET LEAK TEST BUBBLE FLUID IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES.
- DO NOT BREATHE THE GAS.

WARNING: REFER TO THE APPLICABLE MANUFACTURER'S OR SUPPLIER'S MSDS FOR:

- MORE PRECAUTIONARY DATA
- APPROVED SAFETY EQUIPMENT
- EMERGENCY MEDICAL AID.

TALK WITH THE LOCAL SAFETY DEPARTMENT OR AUTHORITIES FOR THE PROCEDURES TO DISCARD THIS HAZARDOUS AGENT.

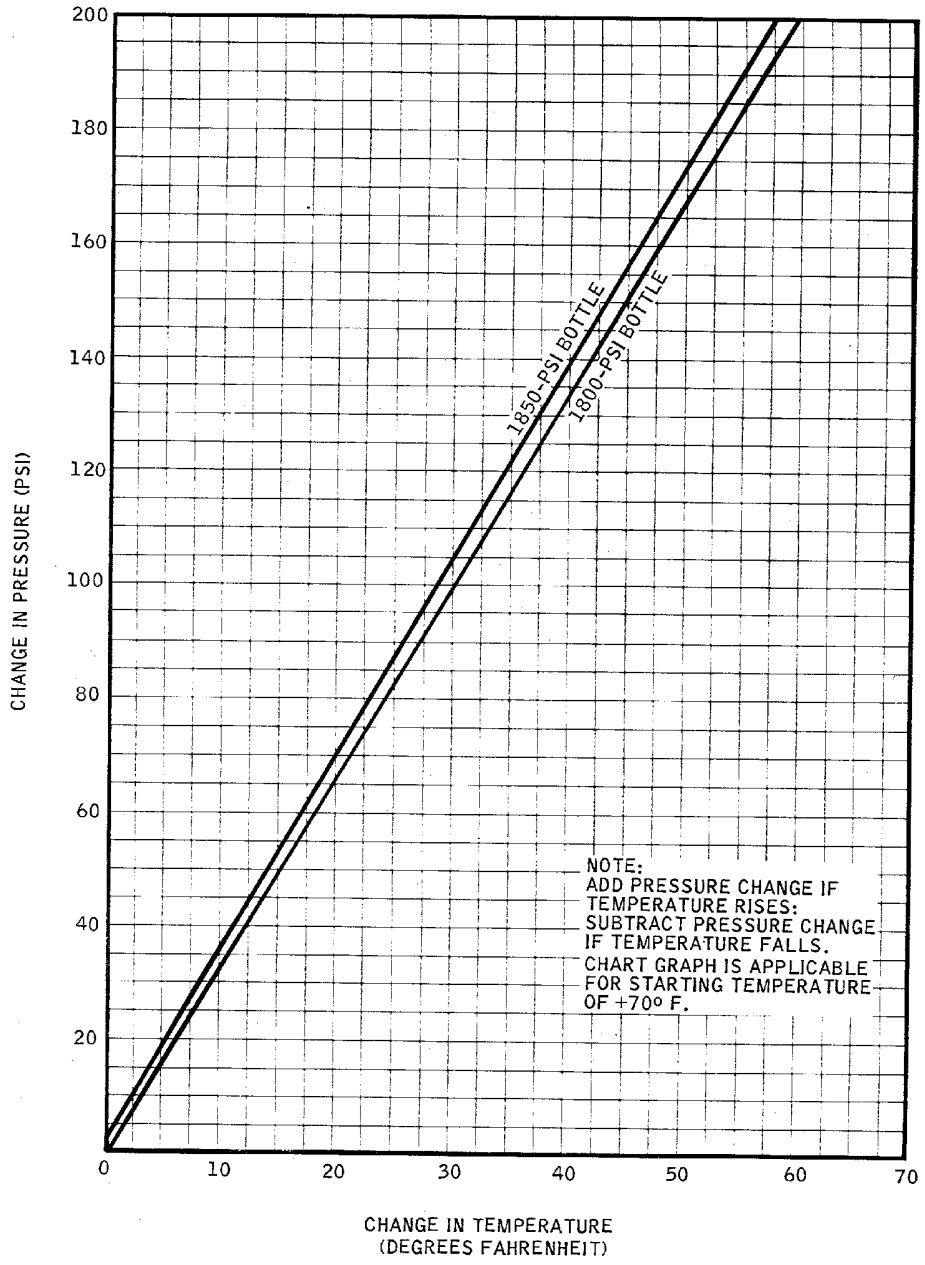
(WARNING PRECEDES)

WARNING: MAKE SURE YOU OBEY ALL APPLICABLE REGULATORY REQUIREMENTS FOR THE TRANSPORT OF OXYGEN GENERATORS. IF THE SERVICE LIFE OF THE GENERATORS HAS EXPIRED, YOU MUST FIRE THE GENERATORS AND MAKE SURE THE OXIDIZER CORE IS EMPTY. THIS MUST BE DONE BEFORE YOU PREPARE THE GENERATORS FOR TRANSPORT. IF THE GENERATORS ARE NOT FIRED AND EMPTY, THEY CAN ACCIDENTALLY FIRE DURING TRANSPORT AND CAUSE HEAT AND IGNITION. THIS CAN CAUSE DEATH OR INJURY TO PERSONS AND DAMAGE TO THE AIRCRAFT.

CAUTION: KEEP THE BUBBLE FLUID SOLUTION OUT OF THE VALVES AND FITTINGS. IMMEDIATELY CLEAN AND DRY ALL OF THE PARTS AFTER YOU DO THE TEST. THIS WILL PREVENT DAMAGE TO THE EQUIPMENT.

CAUTION: DO NOT CAUSE KINKS IN THE PRESSURE HOSE OF THE CREW OXYGEN MASK. WHEN YOU PUT THE PRESSURE HOSE INTO COILS IN THE STORAGE BOX, DO NOT TURN THE CREW OXYGEN MASK. THIS WILL CAUSE KINKS AND DAMAGE THE PRESSURE HOSE.

CAUTION: DO NOT PULL THE OXYGEN GENERATOR FIRING PIN WHEN YOU DISCONNECT OR CONNECT THE LANYARD(S). IF YOU PULL THE PIN, THE GENERATOR WILL FIRE.



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Oxygen Cylinder Pressure/Temperature Correction Chart
Figure 201/35-00-00-990-801

3. **Check Oxygen Cylinder Pressure**

A. Check Crew Oxygen Cylinder Pressure

(1) Check reading on cylinder pressure gage. When cylinder is full, gage should indicate 1850 +0 / -20 psig (12,755 +0 / -138 kPa) at 70°F (21.1°C). (Figure 201)

B. Check Portable Oxygen Cylinder Pressure

(1) Check reading on cylinder pressure gage. When cylinder is full, gage should indicate 1800 +0 / -20 psig (12,411 +0 / -138 kPa) at 70°F (21.1°C). (Figure 201)

CREW OXYGEN SYSTEM - DESCRIPTION AND OPERATION

1. General

A. The crew oxygen system consists of a supply cylinder, a shutoff valve with a cylinder pressure gage, a safety discharge fitting, a supply pressure regulator, automatic pressure breathing diluter-demand regulators, oro-nasal masks, and a quick-disconnect test fitting. (Figure 1)

2. Description

A. Oxygen Cylinder

WJE 873, 874, 886, 887, 892, 893

(1) The crew oxygen cylinder has a capacity of 48 cubic feet (1.36 cubic meters), weighs approximately 22 pounds (9.98 kg), and is charged to 1850 (+0, -20) psig (12765.0 (+0.0, -138.0 kPa) under normal atmospheric conditions.

WJE 405, 409, 410, 880, 881, 883, 884

(2) The crew oxygen cylinder has a capacity of 64 cubic feet (1.8123 cubic meters), weighs approximately 27 pounds (12.247 kg), and is charged to 1850 (+0, -20) psig (12765.0 +0.0, -138.0 kPa) under normal atmospheric conditions.

WJE 401-404, 406-408, 411, 875-879

(3) The crew oxygen cylinder has a capacity of 76 cubic feet (2.15 cubic meters), weighs approximately 31 pounds (14.06 kg), and is charged to 1850 (+0, -20) psig (12765.0 +0.0, -138.0 kPa) under normal atmospheric conditions.

WJE 401-411, 873-881, 883, 884, 886, 887, 892, 893

(4) The cylinder is secured with strap clamps in an upright position, in the aft right-hand corner of the flight compartment. A hand shutoff valve is attached to the cylinder, and a direct reading pressure gage is installed in the valve body. The pressure gage indicates cylinder pressure with the valve in either the open or closed position. An adaptor with a frangible-type blowout disc is installed in the valve body. If the blowout disc ruptures and if cylinder pressure should exceed approximately 2650 psig (18285.0 kPa), the escaping oxygen goes overboard through piping system. (Figure 2)

B. Supply Pressure Regulator

(1) A supply pressure regulator, attached to the cylinder shutoff valve, is provided to reduce high cylinder pressure to a lower constant line pressure.

C. Diluter-Demand Regulators (Panel Mounted)

WJE 401-404, 873-879, 886, 887, 892, 893

(1) A diluter-demand pressure breathing regulator is installed at each flight crew station and automatically controls mixture ratio of air-to-oxygen; the ratio varies with cabin pressure. If desired, 100 percent oxygen can be selected. A light for illuminating the regulator panel is installed in the regulator. A gage on each regulator indicates supply line pressure.

WJE 405, 409, 410, 880, 881, 883, 884

(2) A diluter-demand pressure breathing regulator is installed at each flight crew station and automatically controls mixture ratio of air-to-oxygen; the ratio varies with cabin pressure. If desired, 100 percent oxygen can be selected.

WJE 406-408, 411

(3) A diluter-demand pressure breathing regulator is installed at each flight crew station and automatically controls mixture ratio of air-to-oxygen; the ratio varies with cabin pressure. If desired, 100 percent oxygen can be selected.

(a) A light with a red filter for illuminating the regulator panel is installed in the regulator and a gage on each regulator indicates oxygen system quantity.

WJE 401-411, 873-881, 883, 884, 886, 887, 892, 893

(4) Toggle valves on the diluter-demand regulators permit selection of methods of supplying oxygen to the masks. The supply toggle, located on the right side of the regulator panel, is placarded ON, OFF, and can be safetied to the ON position. When the supply toggle is in the OFF position, the regulator will not supply oxygen to the mask. The diluter toggle, located in the center of the regulator panel, is placarded NORMAL OXYGEN and 100% OXYGEN. When the diluter toggle is in the 100% OXYGEN position only pure oxygen is supplied to the mask; in the NORMAL OXYGEN position, ambient air is mixed with oxygen according to cabin altitude. The emergency toggle, located on the left side of the regulator panel, is placarded EMERGENCY NORMAL, and TEST MASK. In the TEST MASK position, oxygen is supplied to the mask for test purposes. The emergency toggle is spring-loaded from the TEST MASK position to the NORMAL or center position. In the EMERGENCY position, positive pressure is supplied to the mask at all cabin altitudes.

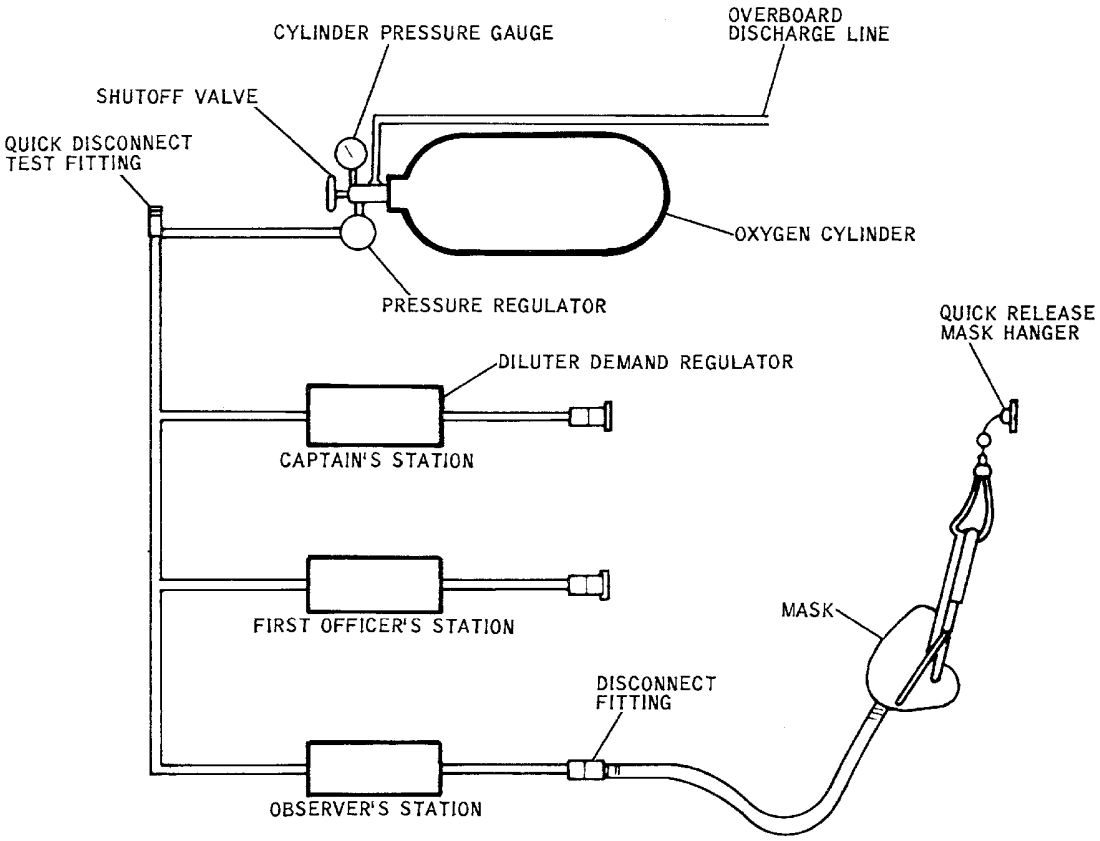
D. Crew Masks

(1) Oxygen masks are provided for each crew member. The masks are stowed on hangers which are attached to the flight compartment ceiling directly over each crew station. The masks used in this system are quick-don oro-nasal type which fits over the mouth and nose only. The part which fits over the mouth and nose (mask housing) is made of plastic and has a rubber face gasket between the housing and face.

(2) A breathing tube extends from the mask housing to the oxygen supply connector. The tube has a quick-disconnect fitting on the end. This fitting connects into the crew system oxygen supply connector or the crew portable cylinder.

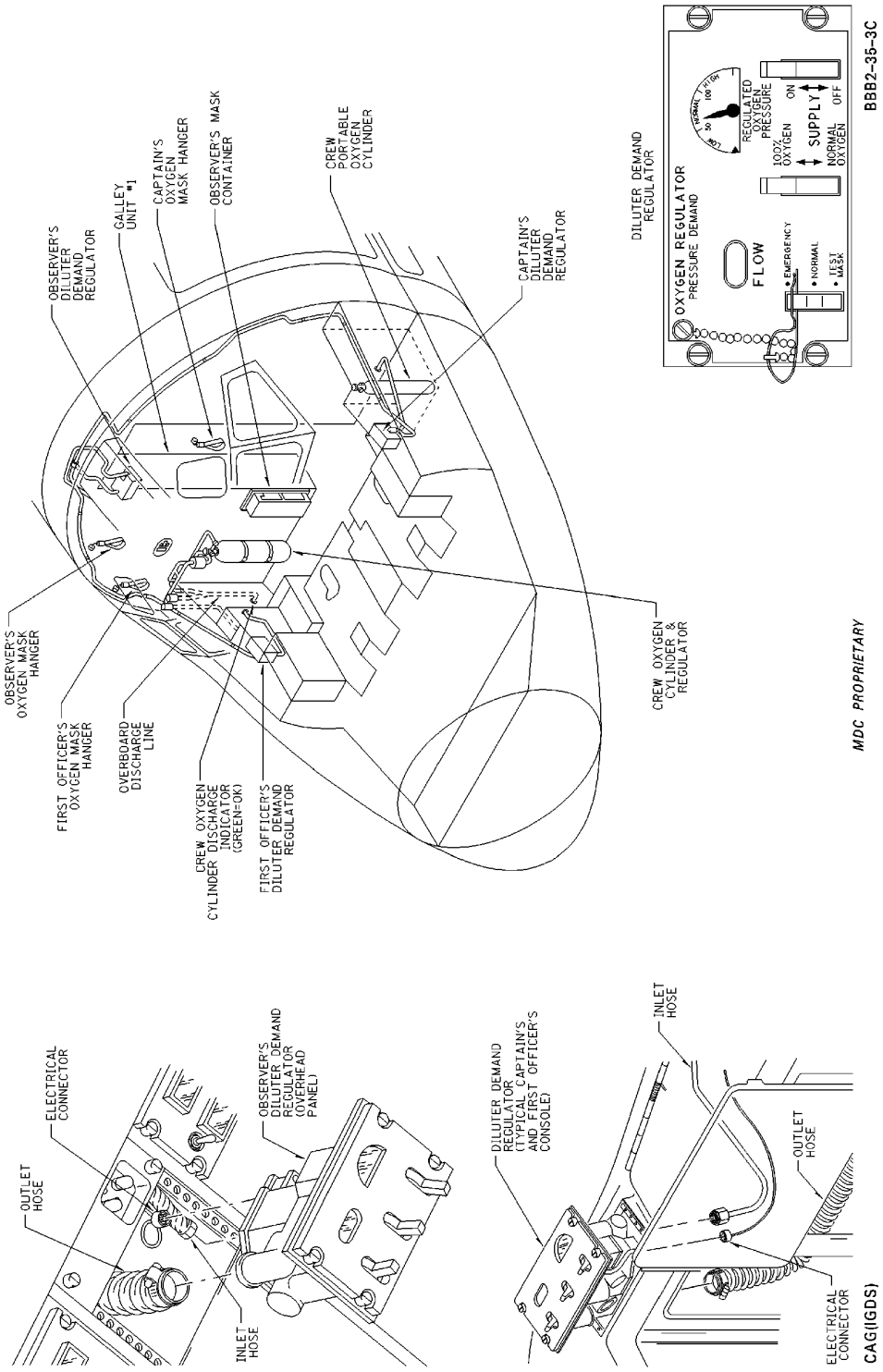
(3) A microphone is installed inside the mask housing. An electrical extension cable, with a press-to-talk switch and a radio plug, extends from the microphone to the radio system jack located adjacent to the oxygen supply connector.

(4) Smoke goggles are provided at each crew station. Smoke goggles provide protection from smoke and toxic gases. Goggles receive continuous venting by switching regulator to EMERGENCY position. On aircraft with Puritan goggles venting occurs automatically. On aircraft with Scott goggles there is a manual switch on mask facepiece.



Crew Oxygen System -- Schematic
Figure 1/35-10-00-990-801

EFFECTIVITY
WJE 401-411, 873-881, 883, 884, 886, 887, 892, 893



Crew Compartment Oxygen -- Installation
Figure 2/35-10-00-990-802

EFFECTIVITY
WJE 401-411, 873-881, 883, 884, 886, 887, 892, 893

3. Operation

WJE 401-404, 873-879, 886, 887, 892, 893

A. Supply Pressure Regulator

(1) The supply pressure regulator, attached to the cylinder shutoff valve, reduces cylinder pressure from approximately 1850 psig (12765.0 kPa) to a line pressure between 50 and 75 psig (345.0 and 517.5 kPa). A relief valve in the regulator automatically opens to relieve line pressure at approximately 110 psig (759.0 kPa) and closes at approximately 90 psig (621.0 kPa).

(2) High-pressure oxygen enters the regulator through the inlet valve. Oxygen flow through the regulator to the individual diluter-demand regulators is controlled by the inlet valve. The valve is held against the valve seat by a toggle link mechanism, which is maintained in the closed position by outlet pressure acting on the diaphragm. A preset regulator spring acts on the upper surface of the diaphragm. When regulator spring pressure exceeds outlet pressure, the toggle link joint mechanism is forced downward; pushes the inlet valve from its seat, and allows oxygen to flow. As oxygen flows through the regulator, outlet pressure builds up on the diaphragm to counterbalance the regulator spring pressure. When outlet pressure and regulator spring pressure become equal, the toggle link mechanism moves the valve to a stabilized position to maintain a constant outlet pressure. (Figure 3)

WJE 405-411, 880, 881, 883, 884

B. Supply Pressure Regulator

(1) The supply pressure regulator:

WJE 406-408, 411

(a) Serves to reduce the cylinder pressure, originally 1850 psig (12765.0 kPa), to a line pressure between 50 and 75 psig (344.8 and 517.1 kPa), depending upon the pressure remaining in the cylinder. The regulator is attached to the cylinder hand-operated shutoff valve. Threaded into the high-pressure side of the cylinder regulator is a direct-reading cylinder pressure gage.

WJE 405, 409, 410, 880, 881, 883, 884

(b) Is attached to the cylinder shutoff valve, reduces cylinder pressure from approximately 1850 psig (12765.0 kPa) to a line pressure between 50 and 75 psig (345.0 and 517.5 kPa). A relief valve in the regulator automatically opens to relieve line pressure at approximately 110 psig (759.0 kPa) and closes at approximately 90 psig (621.0 kPa).

WJE 405-411, 880, 881, 883, 884

(2) Oxygen enters the regulator:

WJE 406-408, 411

(a) From the cylinder at 1850 psig (12765.0 kPa) is reduced to a maximum line pressure of 75 psig (517.1 kPa). Pressure regulation is accomplished by applying a high pressure against a small area and a low pressure against a large area. The high-pressure source is the cylinder pressure, and it acts against the poppet valve. The low pressure is the reduced pressure within the housing downstream of the poppet, and it acts against the bellows and guide assembly. The restricted flow past the poppet valve causes pressure reduction in the housing. As the cylinder pressure decreases, the outlet pressure also decreases to provide a proportional reduction in the line pressure. (Figure 4)

WJE 405, 409, 410, 880, 881, 883, 884

(b) Through the inlet valve. High-pressure oxygen flow through the regulator to the individual diluter-demand regulators is controlled by the inlet valve. The valve is held against the valve seat by a toggle link mechanism, which is maintained in the closed position by outlet pressure acting on the diaphragm. A preset regulator spring acts on the upper surface of the diaphragm. When regulator spring pressure exceeds outlet pressure, the toggle link joint mechanism is forced downward; pushes the inlet valve from its seat, and allows oxygen to flow. As oxygen flows through the regulator, outlet pressure builds up on the diaphragm to counter-balance the regulator spring pressure. When outlet pressure and regulator spring pressure become equal, the toggle link mechanism moves the valve to a stabilized position to maintain a constant outlet pressure. (Figure 3)

WJE 401-411, 873-881, 883, 884, 886, 887, 892, 893

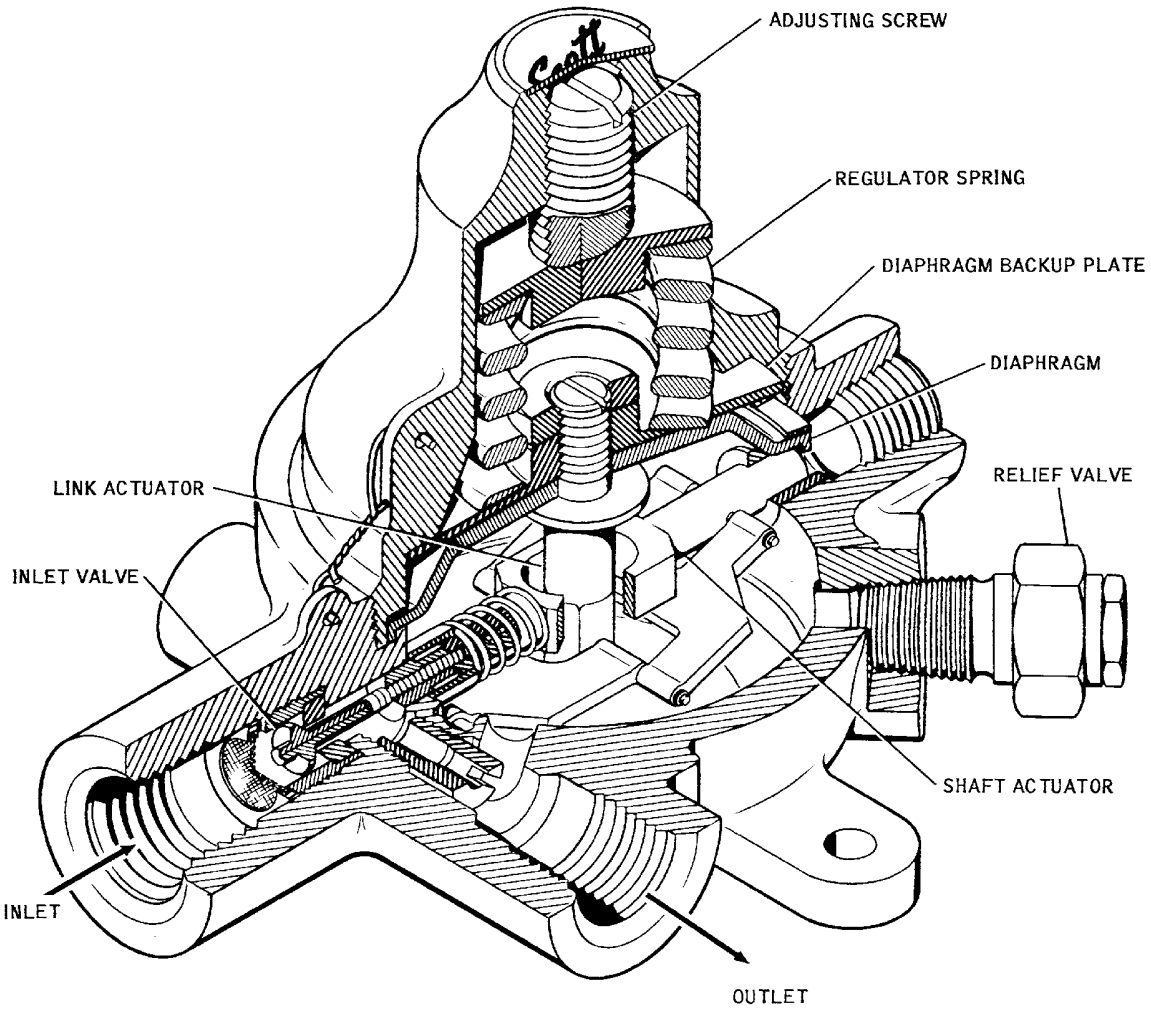
C. Diluter-Demand Regulators

(1) For normal operation of the system, the supply toggle must be in the ON position and the diluter and emergency toggles in NORMAL OXYGEN position. This condition supplies oxygen to the mask on demand. Dilution of oxygen with air is controlled by an aneroid within the regulator. If cabin decompression occurs at altitudes above 28,000 feet (8.5344 km), the aneroid automatically senses the change in cabin pressure. The aneroid closes the air valve; overrides the demand valve, and supplies pure oxygen at a more positive pressure to the masks. To provide protective breathing, when harmful conditions exist in the flight compartment, the diluter toggle must be in the 100% OXYGEN position. This position closes the air valve in the regulator and permits only pure oxygen to reach the mask. (Figure 5)

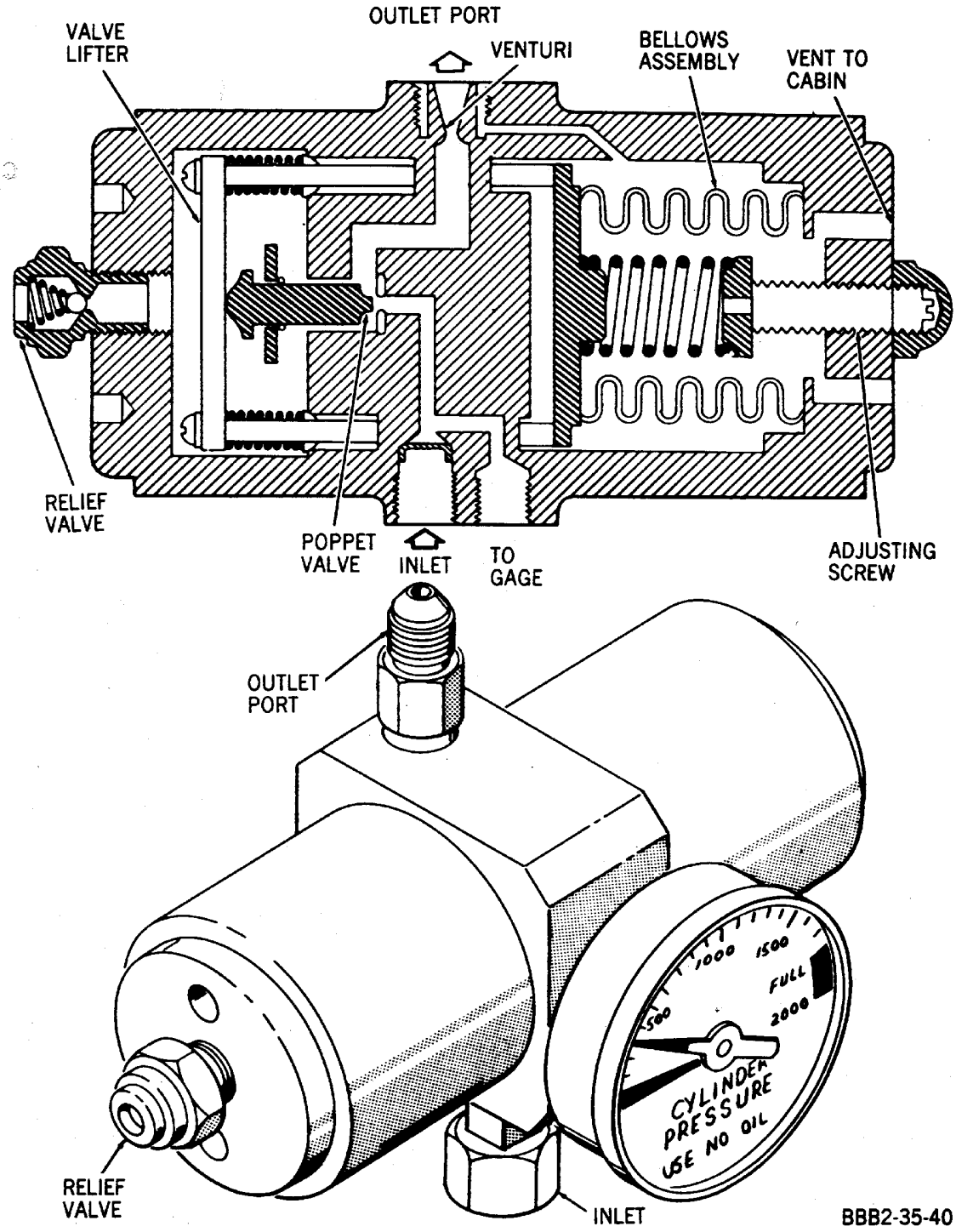
(2) If automatic operation of the regulator should fail, the diluter toggle must be placed in the 100% OXYGEN position, and the emergency toggle in the EMERGENCY position. These toggle positions mechanically override the demand diaphragm in the regulator unit and only pure oxygen with positive pressure is supplied to the masks. The emergency toggle is guarded by a safety pin which must be removed before the toggle can be placed in EMERGENCY position.

D. Masks

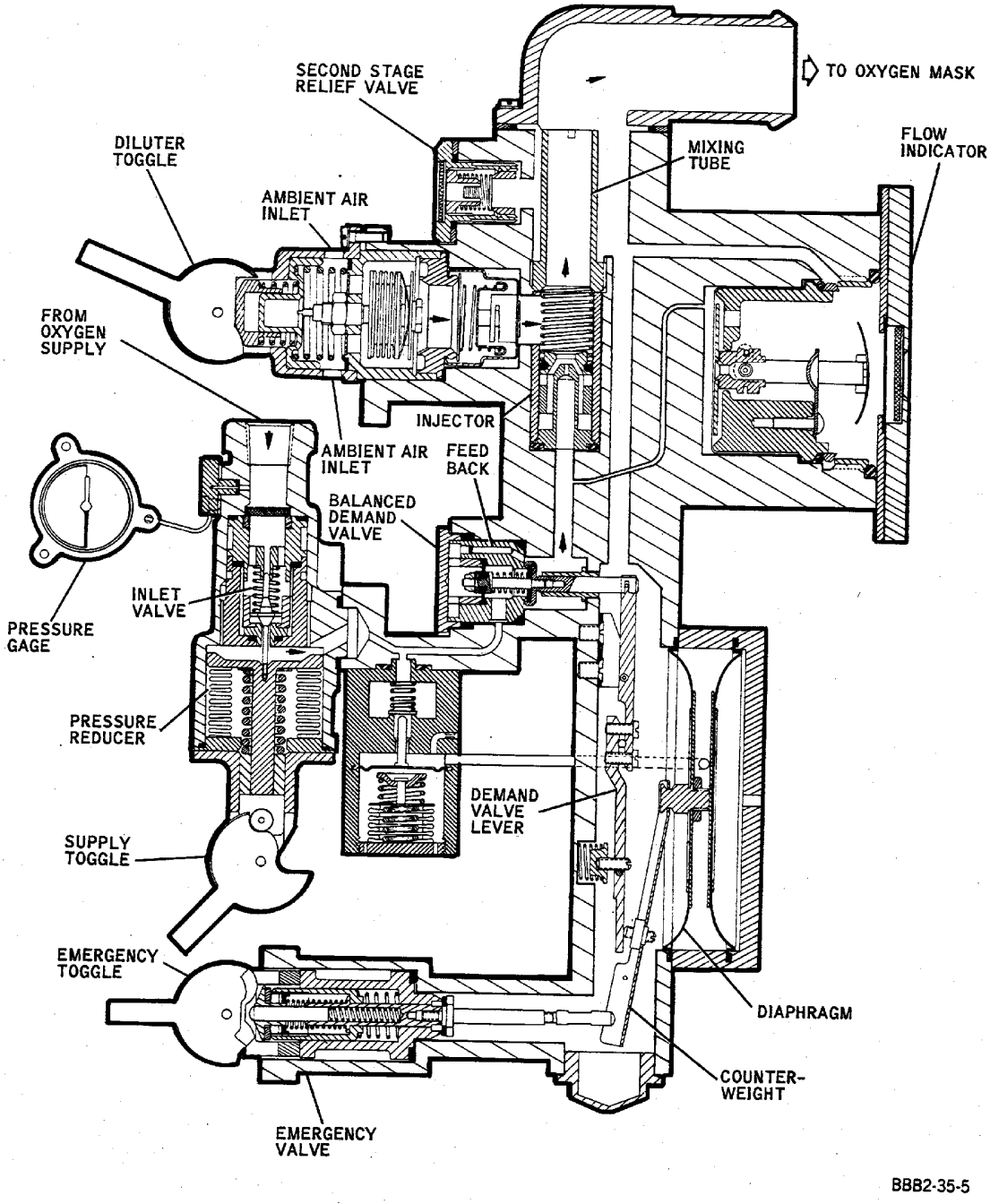
(1) Each crew mask is ready for immediate use when removed from the overhead hanger and put on the user's face. The oxygen mask valve opens and closes with the breathing of the wearer.



Crew Oxygen Supply Pressure Regulator - Schematic
Figure 3/35-10-00-990-803



Crew Oxygen Supply Pressure Regulator -- Schematic
Figure 4/35-10-00-990-804



Diluter-Demand Regulator -- Schematic
Figure 5/35-10-00-990-805

CREW OXYGEN SYSTEM - DESCRIPTION AND OPERATION

1. General

A. The crew oxygen system consists of a supply cylinder, a shutoff valve with a cylinder pressure gage, a safety discharge fitting, a supply pressure regulator, quick-don type oro-nasal masks with a mask-mounted diluter-demand regulator, mask storage box with oxygen supply hose and microphone connector, and a quick-disconnect test fitting.

2. Description

A. Oxygen Cylinder

(1) The crew oxygen cylinder has a capacity of 76 cubic feet (2.1561 cubic meters), weighs approximately 33 pounds (14.969 kg), and is charged to 1850 (+0, -20) psi (12765.0 +0.0, -138.0 kPa) under normal atmospheric conditions. The cylinder is secured with strap clamps in an upright position, in the aft right corner of the flight compartment. A hand shutoff valve is attached to the cylinder, and a direct reading pressure gage is installed in the valve body. The pressure gage indicates cylinder pressure with the valve in either the open or closed position. An adaptor with a frangible-type blowout disc is installed in the valve body. The blowout disc ruptures and allows oxygen to escape overboard if cylinder pressure should exceed approximately 2650 psi (18285.0 kPa). (Figure 1)

B. Supply Pressure Regulator

(1) A supply pressure regulator, attached to the cylinder shutoff valve, is provided to reduce high cylinder pressure to a lower constant line pressure. (Figure 2)

C. Diluter-Demand Regulator

(1) A mask-mounted diluter-demand pressure breathing regulator is installed on the mask at each crew station and automatically controls mixture ratio of air-to-oxygen: the ratio varies with cabin pressure. If desired, 100% oxygen can be selected.

(2) A slide lever on the mask-mounted diluter-demand regulator permits selection of diluter-demand or 100% oxygen to the mask. The supply slide lever, located on the right side of the diluter-demand regulator, is normally stowed in the 100% (down) position. When the slide selector is moved to N (up) position the mask is then in diluter-demand and ambient air is mixed with oxygen according to cabin altitude. The emergency manual control, located on the lower front of the mask-mounted regulator, is placarded PRESS TO TEST and TURN TO EMERGENCY. In the PRESS TO TEST position, oxygen is supplied to the mask for test purposes. In the EMERGENCY position, positive pressure is suppled to the mask. (Figure 3)

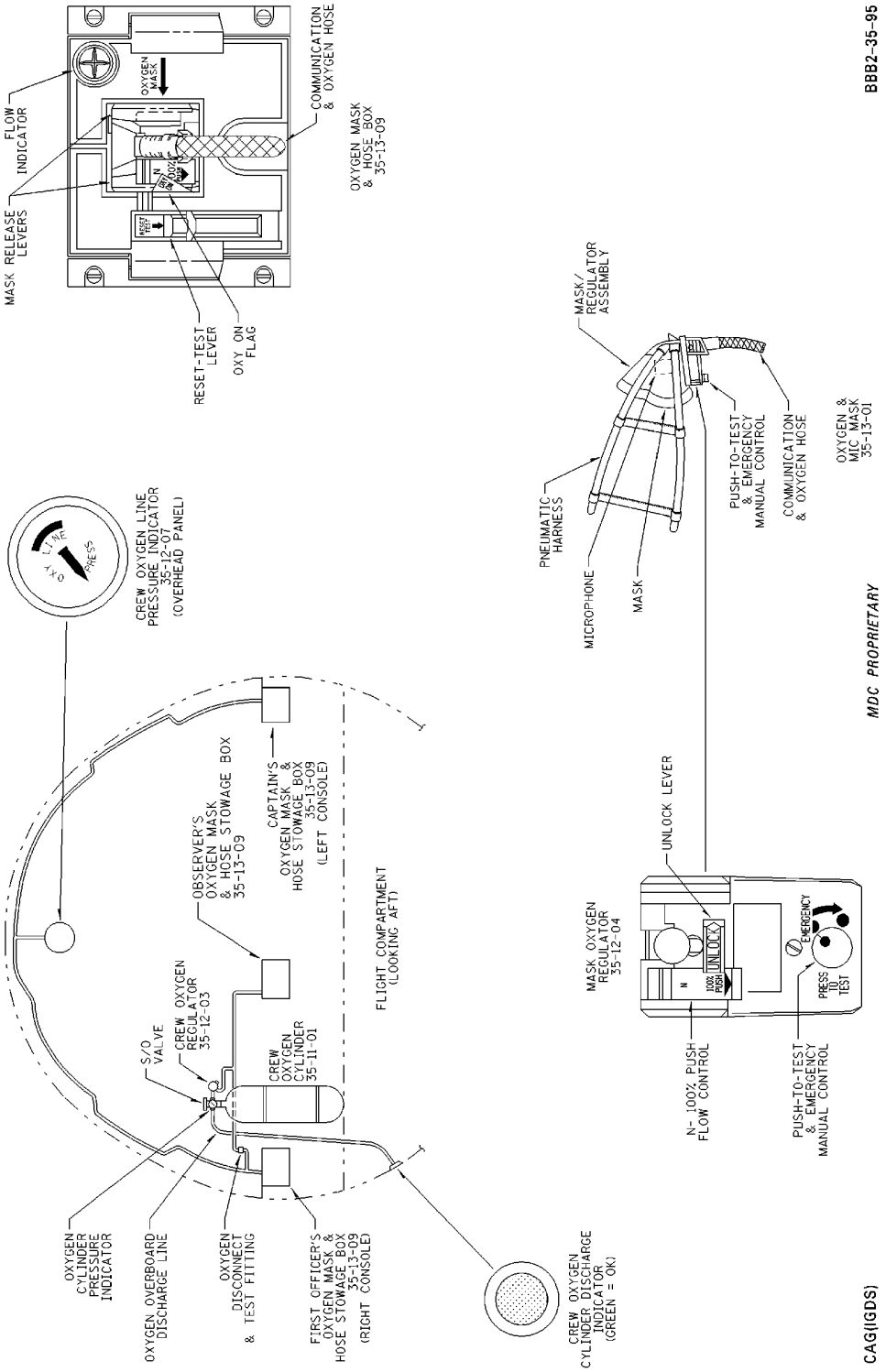
D. Crew Masks

(1) Oxygen masks are provided for each crew member. The masks are stowed in mask stowage boxes at each crew station. The masks used in this system are quick-don oro-nasal type that fit over the mouth and nose only. The part that fits over the mouth and nose (mask housing) is made of plastic and has a rubber face gasket between the housing and face.

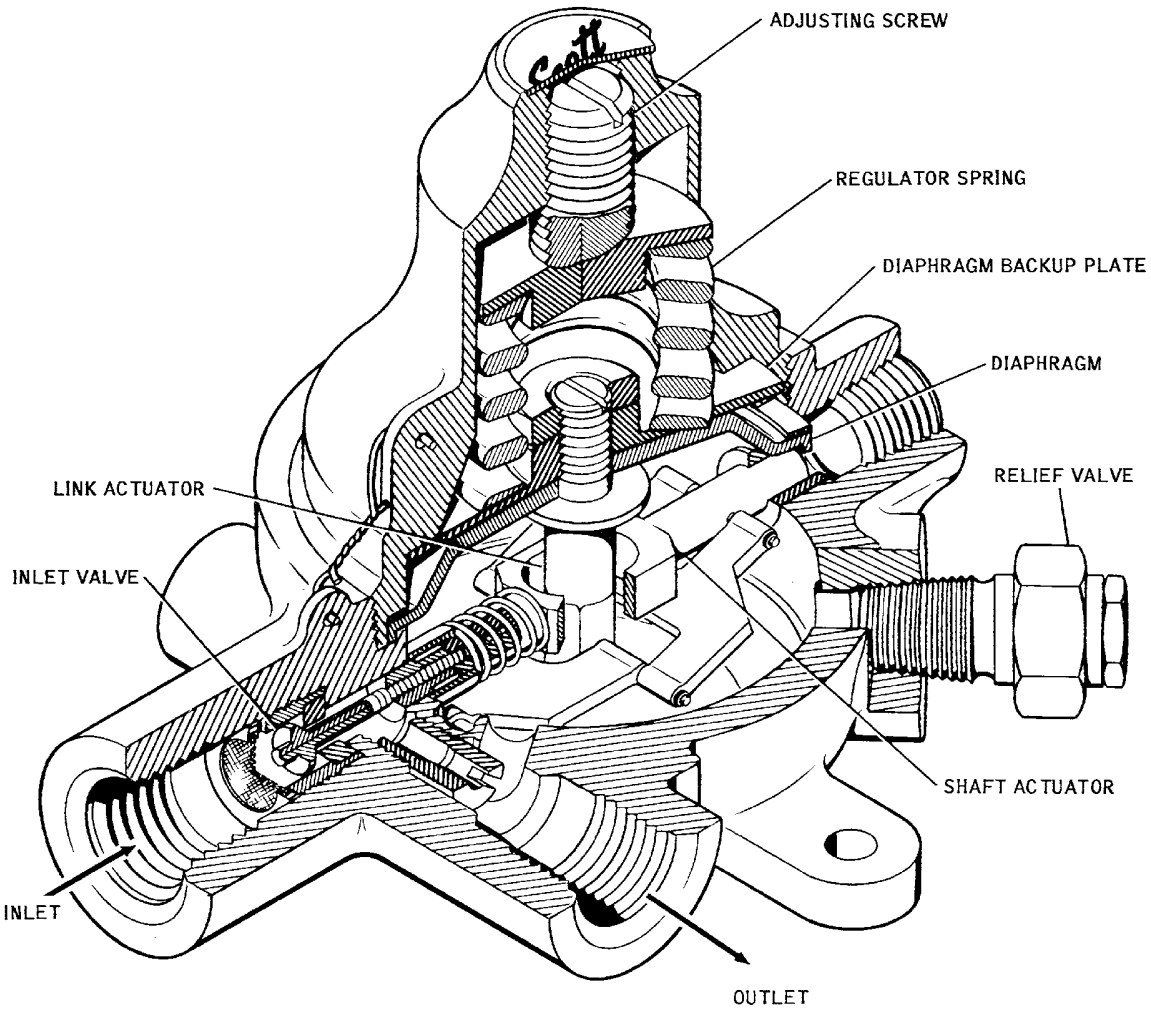
(2) A breathing tube extends from the mask-mounted diluter-demand regulator to the supply hose in the stowage box. The tube has a quick-disconnect fitting on the end. When the tube is disconnected from the supply tube in the stowage box, the oxygen is shut off by a spring valve in the stowage box supply hose. The stowage box supply hose is coiled in the bottom of the stowage box and is connected to the system oxygen by a hose connection.

(3) A microphone is installed inside the mask housing. An electrical extension cable, built into the oxygen mask hose and supply box hose, with a press-to-talk switch and a radio plug, extends from the microphone to the communication system jack located adjacent to the oxygen supply connector.

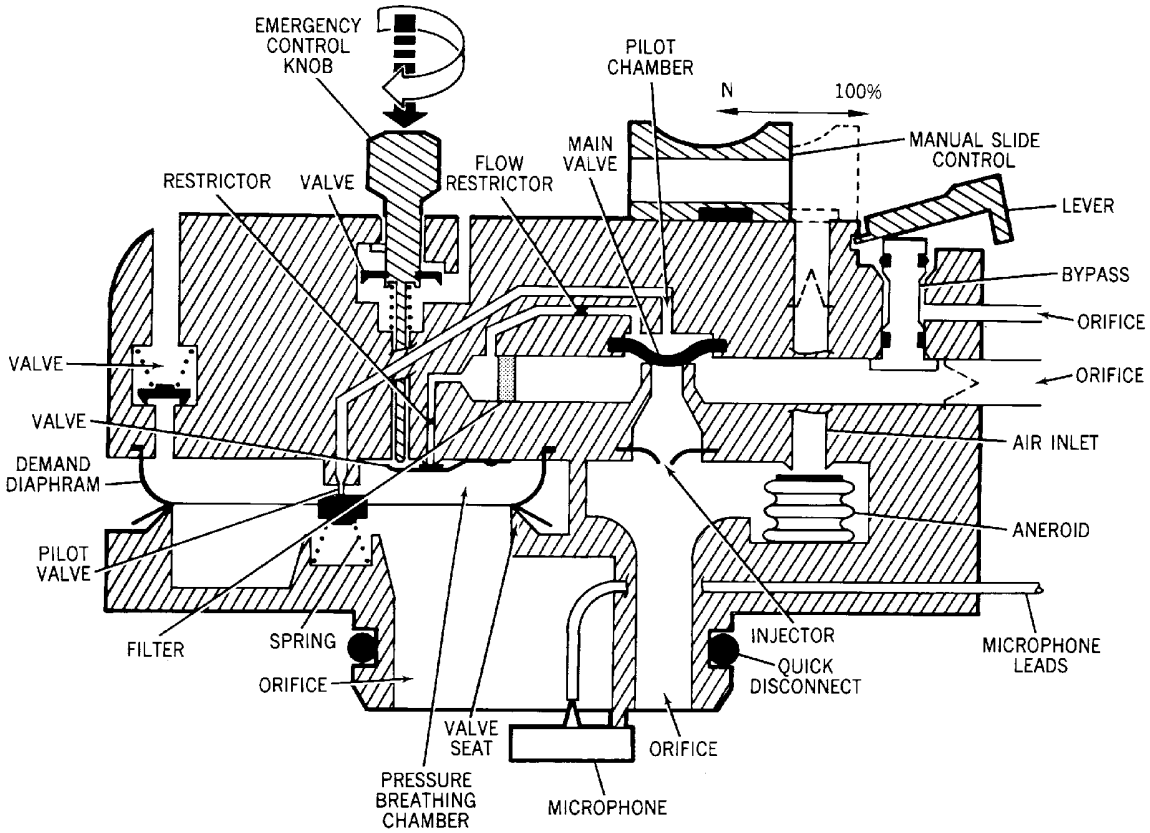
(4) Smoke goggles are provided at each crew station. Smoke goggles provide protection from smoke and toxic gases. Goggles receive continuous venting by turning regulator to EMERGENCY position.



Crew Compartment Oxygen -- Installation
Figure 1/35-10-00-990-806

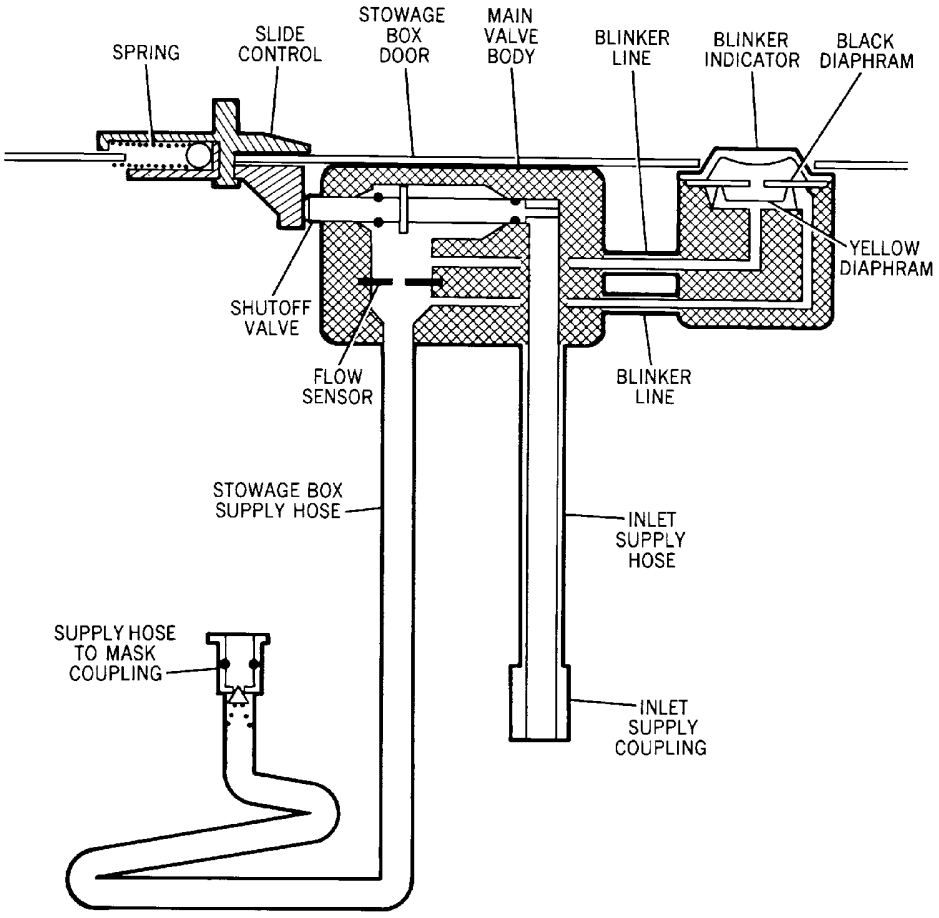


Crew Oxygen Supply Pressure Regulator -- Schematic
Figure 2/35-10-00-990-807



BBB2-35-45

Mask-Mounted Diluter-Demand Regulator -- Schematic
Figure 3/35-10-00-990-808



BBB2-35-46

Stowage Box Valve and Supply Lines -- Schematic
Figure 4/35-10-00-990-809

3. Operation

A. Supply Pressure Regulator

(1) The supply pressure regulator, attached to the cylinder shutoff valve, reduces cylinder pressure from approximately 1850 psi (12765.0 kPa) to a line pressure between 70 and 94 psi (483.0 and 648.6 kPa), depending upon the pressure remaining in the cylinder. The regulator is attached to the cylinder hand operated shutoff valve. Threaded into the high-pressure side of the cylinder regulator is a direct-reading cylinder pressure gage.

(2) High-pressure oxygen enters the regulator through the inlet valve. Oxygen flow through the regulator to the individual mask-mounted diluter-demand regulators is controlled by the inlet valve. The valve is held against the valve seat by a toggle link mechanism, which is maintained in the closed position by outlet pressure acting on the diaphragm. A preset regulator spring acts on the upper surface of the diaphragm. When regulator spring pressure exceeds outlet pressure, the toggle link joint mechanism is forced downward; pushes the inlet valve from its seat, and allows oxygen to flow. As oxygen flows through the regulator, outlet pressure builds up on the diaphragm to counterbalance the regulator spring pressure. When outlet pressure and regulator spring pressure become equal, the toggle link mechanism moves the valve to a stabilizing position to maintain a constant outlet pressure. (Figure 2)

B. Diluter-Demand Regulators

(1) For normal diluter-demand operation of the system, the slide lever on the mask-mounted diluter-demand regulator must be in the N (up) position. This condition supplies oxygen to the mask on demand. Dilution of oxygen with air is controlled by an aneroid within the regulator. To provide protective breathing, when harmful conditions exist in the flight compartment, the slide lever on the mask-mounted diluter-demand regulator must be in the 100% oxygen (down) position. This position closes the air valve in the regulator and permits only pure oxygen to reach the mask. (Figure 3)

(2) If the automatic operation of the mask-mounted diluter-demand regulator should fail, the slide lever must be placed in the 100% oxygen (down) position. This position mechanically overrides the demand diaphragm in the regulator unit and only pure oxygen with positive pressure is supplied to the masks.

C. Masks

(1) Each crew mask is ready for immediate use when removed from the stowage box and put on the user's face. The mask-mounted regulator is automatically on in the 100% oxygen position when the mask is removed from the stowage box. The crew member can move the manual slide lever to the N (up) position for normal diluter-demand operation of the system.

D. Stowage Box

(1) A stowage box is installed at each crew member station. Each box contains supply hose that connect to the aircraft supply lines. The supply hose is connected to a valve body install in the stowage box supplying oxygen to the valve. A slide control on the left door is spring controlled and holds the shutoff valve in the closed position when the mask is stowed. When the slide control is held in the RESET TEST position oxygen is supplied through the mask supply hose to the mask and to the blinker indicator. When the mask is removed from the stowage box the doors are opened and the shutoff valve automatically opens and supplies oxygen to the mask and blinker indicator. (Figure 4)

WJE

CREW OXYGEN SYSTEM - DESCRIPTION AND OPERATION

WJE

1. General

WJE A. The crew oxygen system consists of a supply cylinder, a shutoff valve with a cylinder pressure gauge, a safety discharge fitting, a supply pressure regulator, quick don type full face sweep-on mask with mask mounted diluter-demand regulator, an oxygen supply hose, microphone connector, and a quick disconnect test fitting. (Figure 1)

WJE

2. Description

WJE A. Oxygen Cylinder

WJE (1) The crew oxygen cylinder has a capacity of 115 cubic feet (3.256 cubic meters), weighs approximately 47.8 pounds (21.682 kg), and is charged to 1850 (+0, -20) psi (12765.0 +0.0, -138.0 kPa) under normal atmospheric conditions. The cylinder is secured with strap clamps in an upright position, in the aft right corner of the flight compartment. A hand shutoff valve is attached to the cylinder, and a direct reading pressure gauge is installed in the valve body. The pressure gauge indicates cylinder pressure with the valve in either the open or the closed position. An adaptor with a frangible-type blowout disk is installed in the valve body. The blowout disk ruptures and allows oxygen to escape overboard should cylinder pressure exceed approximately 2650 psi (18285.0 kPa). (Figure 1)

WJE B. Supply Pressure Regulator

WJE (1) A supply pressure regulator, attached to the cylinder shutoff valve, is provided to reduce high pressure to a lower constant line pressure. (Figure 2)

WJE C. Diluter-Demand Regulator

WJE (1) A mask-mounted diluter demand pressure breathing regulator is installed on the mask at each crew station and automatically controls mixture ratio of air-to-oxygen. The ratio varies with cabin pressure. If desired, 100% oxygen can be selected.

WJE (2) A knob on the mask-mounted regulator permits selection of diluter demand (NORM) or 100% oxygen to the mask. When the knob is in the NORM position, ambient air is mixed with oxygen according to cabin altitude. In the EMERGENCY (EMER) position, positive pressure is supplied to the mask to keep toxic gases out. (Figure 3)

WJE D. Crew Masks

WJE (1) Oxygen masks are provided for each crew member. The masks are stowed in mask stowage bags at each crew station. The masks used in this system are quick-don full face sweep-on type that fit over the mouth and nose only. The part that fits over the mouth and nose (mask housing) is made of plastic and has a rubber face gasket between the housing and face.

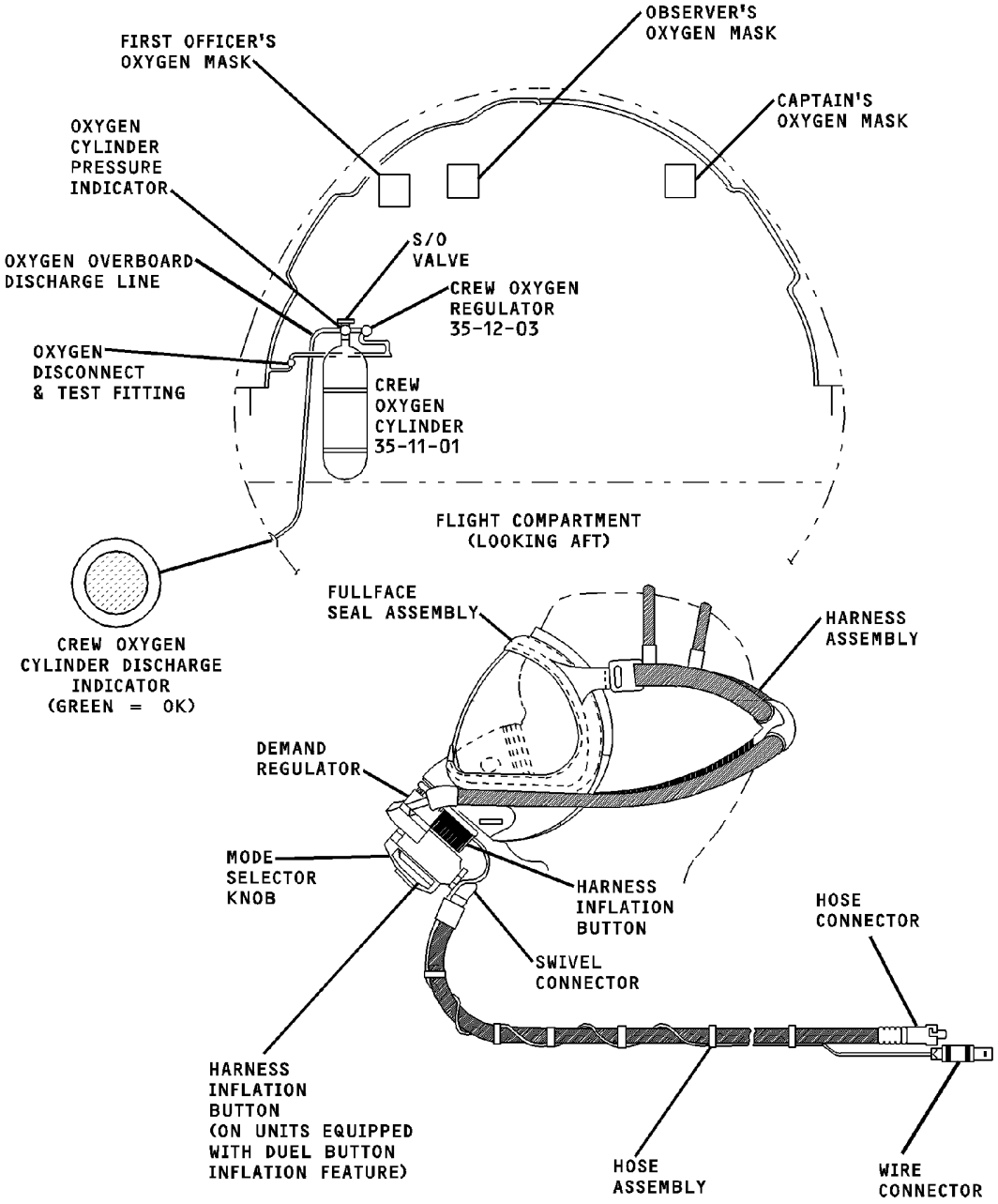
WJE (2) A breathing tube extends from the mask-mounted diluter demand regulator to the supply hose in the side console outlet. The tube has a quick disconnect fitting on the end. When the tube is disconnected from the supply tube in the side console outlet, the oxygen is shut off by a spring valve.

WJE (3) A microphone is installed inside the mask housing. An electrical extension cable, built into the oxygen mask hose and supply box hose, with a press-to-talk switch and a radio plug, extends from the microphone to the communication system jack located adjacent to the oxygen supply connector.

WJE (4) Refer to: B/E Aerospace CMM 35-10-60 for more details about the full face mask.

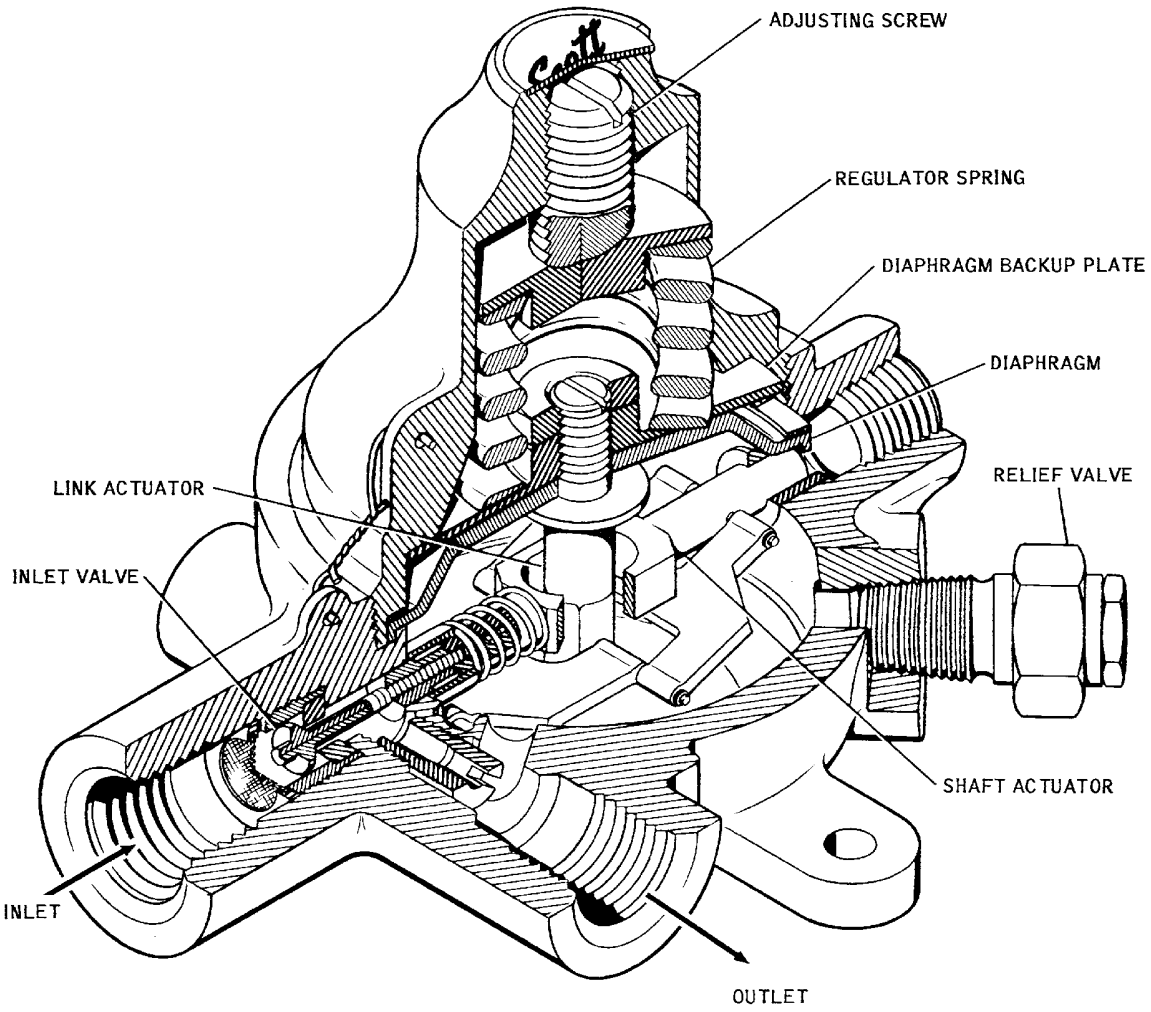
WJE (5) Refer to: B/E Aerospace CMM 35-10-61 for more details about the mask's Demand Regulator.

WJE



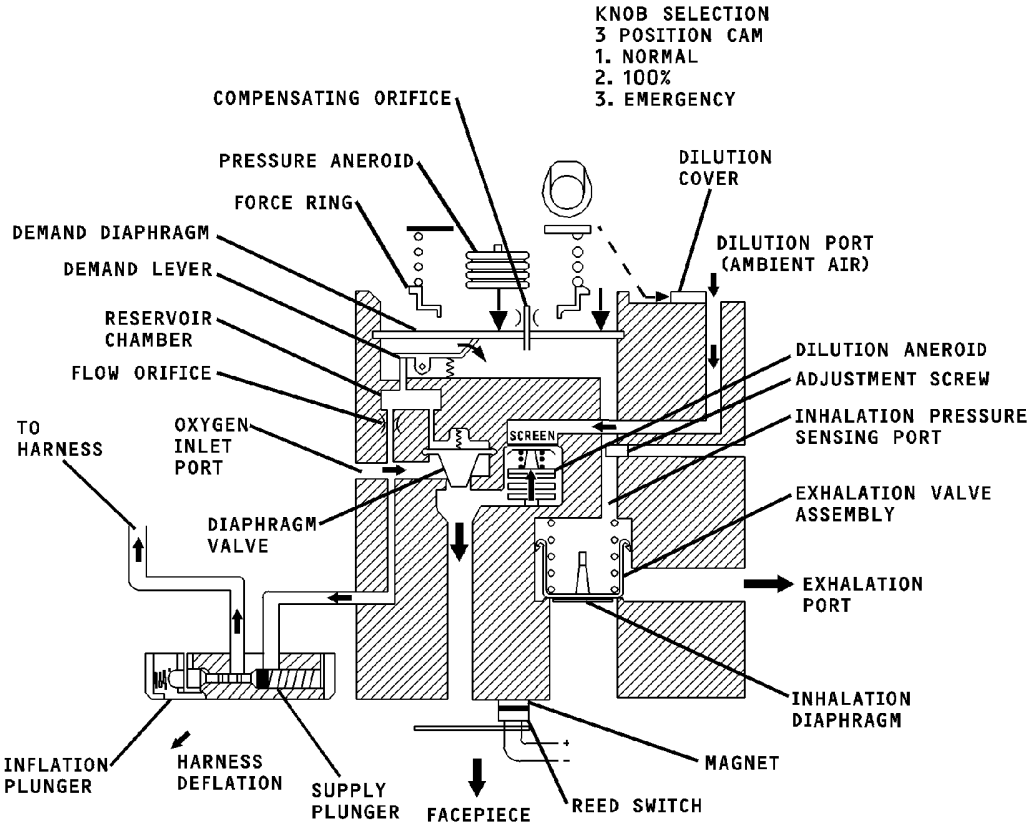
WJE
WJE

Crew Oxygen System -- Schematic
Figure 1/35-10-00-990-810



WJE
WJE

Crew Oxygen Supply Pressure Regulator -- Schematic
Figure 2/35-10-00-990-811



CAG(IGDS)

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WJE
WJE

Mask-Mounted Diluter-Demand Regulator -- Schematic
Figure 3/35-10-00-990-812

WJE **3. Operation**

WJE A. Supply Pressure Regulator

WJE (1) The supply pressure regulator, attached to the cylinder shutoff valve, reduces the cylinder pressure from approximately 1850 psi (12765.0 kPa) to a line pressure between 70 and 94 psi (483.0 and 648.6 kPa), depending upon the pressure remaining in the cylinder. The regulator is attached to the cylinder hand operated shutoff valve. Threaded into the high-pressure side of the cylinder regulator is a direct reading cylinder pressure gauge.

WJE (2) High pressure oxygen enters the regulator through the inlet valve (Ref. Figure 3). Oxygen flow through the regulator to the individual mask-mounted diluter demand regulators is controlled by the inlet valve. The valve is held against the valve seat by a toggle link mechanism, which is maintained in the closed position by outlet pressure acting on the diaphragm. A preset regulator spring acts on the upper surface of the diaphragm. When regulator spring pressure exceeds outlet pressure, the toggle link joint mechanism is forced downward; pushes the inlet valve from its seat, and allows oxygen to flow. As oxygen flows through the regulator, outlet pressure builds up on the diaphragm to counterbalance the regulator spring pressure. When outlet pressure and regulator spring pressure become equal, the toggle link mechanism move the valve to a stabilizing position to maintain a constant outlet pressure.

WJE B. Diluter-Demand Regulators

WJE (1) For normal diluter demand operation of the system, the knob on the mask mounted diluter demand regulator must be in the NORM position. This condition supplies oxygen to the mask on demand. Dilution of oxygen with air is controlled by an aneroid within the regulator. If cabin decompression occurs at altitude above 28,000 feet (8534.4 m), the aneroid automatically senses the change in cabin pressure. The aneroid closes the air valve, overrides the demand valve, and supplies pure oxygen at a more positive pressure to the mask. To provide protective breathing, when harmful conditions exist in the flight compartment, the knob on the mask-mounted diluter demand regulator can be put in the EMER position. Like the 100% position, this position closes the air valve in the regulator and permits only pure oxygen to reach the mask. But in addition, it applies a positive pressure that prevents toxic gases from entering. It can be used to purge the goggles. (Figure 3)

WJE (2) If the automatic operation of the mask-mounted diluter demand regulator should fail, the regulator knob must be placed in the 100% oxygen position. The position mechanically overrides the demand diaphragm in the regulator unit and only pure oxygen is supplied to the masks.

WJE C. Masks

WJE (1) Each crew mask is ready for immediate use when put on the user's face. Use the regulator knob to select the oxygen delivery type. Use the red inflator button on the side of the regulator to reset or toggle the harness tension fit of the mask. Slowly push back on the harness attachments to make the fit more comfortable.

CREW OXYGEN SYSTEM - TROUBLE SHOOTING

1. Equipment and Materials

NOTE: Equivalent substitutes may be used instead of the following listed items:

NOTE: It is possible that some materials in the Equipment and Materials List cannot be used for some or all of their necessary applications. Before you use the materials, make sure the types, quantities, and applications of the materials necessary are legally permitted in your location. All persons must obey all applicable federal, state, local, and provincial laws and regulations when it is necessary to work with these materials.

Table 101

Name and Number	Manufacturer
Bubble fluid solution (MIL-L-25567) DPM 6045	

2. Trouble Shooting

A. NO PRESSURE INDICATED ON ALL DILUTER-DEMAND REGULATOR GAGES

Table 102

Possible Causes		Isolation Procedures	Correction
(1)	Cylinder shutoff valve closed		Open cylinder shutoff valve
(2)	Pressure regulator defective	Test regulator	Replace regulator
(3)	Diluter-demand regulator defective	Test diluter-demand regulator	Replace regulator
WARNING: LEAK TEST BUBBLE FLUID IS AN AGENT THAT IS AN IRRITANT. MAKE SURE ALL PERSONS OBEY THE PRECAUTIONS WHEN LEAK TEST BUBBLE FLUID IS USED. • USE IN AN AREA OPEN TO THE AIR. • CLOSE THE CONTAINER WHEN NOT USED. • DO NOT GET LEAK TEST BUBBLE FLUID IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES. • DO NOT BREATHE THE GAS.			
WARNING: REFER TO THE APPLICABLE MANUFACTURER'S OR SUPPLIER'S MSDS FOR: • MORE PRECAUTIONARY DATA • APPROVED SAFETY EQUIPMENT • EMERGENCY MEDICAL AID. TALK WITH THE LOCAL SAFETY DEPARTMENT OR AUTHORITIES FOR THE PROCEDURES TO DISCARD THIS HAZARDOUS AGENT.			
(4)	System lines leak	Bubble soap lines	Repair leaks

B. NO DILUTED OXYGEN FLOW THROUGH DILUTER-DEMAND REGULATOR (NO BLINKER INDICATION)

Table 103

Possible Causes		Isolation Procedures	Correction
(1)	Pressure regulator defective	Test regulator	Replace regulator
(2)	Diluter-demand regulator defective	Test diluter-demand regulator	Replace regulator

Table 103 (Continued)

Possible Causes		Isolation Procedures	Correction
(3)	Supply to mask	Test	Repair system (replace hose or connection)

C. NO 100% OXYGEN FLOW THROUGH DILUTER-DEMAND REGULATOR (NO FLOW TO MASK) (NO BLINKER INDICATION)

Table 104

Possible Causes		Isolation Procedures	Correction
(1)	Pressure regulator defective	Test regulator	Replace regulator
(2)	Diluter-demand regulator defective	Test diluter-demand regulator	Replace regulator

D. NO OXYGEN FLOW TO MASKS (NO BLINKER INDICATION)

Table 105

Possible Causes		Isolation Procedures	Correction
(1)	Pressure regulator defective	Test regulator	Replace regulator
(2)	Diluter-demand regulator defective	Test diluter-demand regulator	Replace regulator
(3)	Mask hose connector damaged or disconnected	Check hose at diluter-demand regulator	Replace damaged hose or connect hose
		Check hose at console connection	Replace damaged hose or connect hose

E. SYSTEM LOSES PRESSURE WITH DILUTER-DEMAND REGULATOR SUPPLY TOGGLE IN OFF POSITION AND EMERGENCY TOGGLE IN EMERGENCY POSITION DURING LEAK TEST

Table 106

Possible Causes		Isolation Procedures	Correction
WARNING: LEAK TEST BUBBLE FLUID IS AN AGENT THAT IS AN IRRITANT. MAKE SURE ALL PERSONS OBEY THE PRECAUTIONS WHEN LEAK TEST BUBBLE FLUID IS USED. • USE IN AN AREA OPEN TO THE AIR. • CLOSE THE CONTAINER WHEN NOT USED. • DO NOT GET LEAK TEST BUBBLE FLUID IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES. • DO NOT BREATHE THE GAS.			
WARNING: REFER TO THE APPLICABLE MANUFACTURER'S OR SUPPLIER'S MSDS FOR: • MORE PRECAUTIONARY DATA • APPROVED SAFETY EQUIPMENT • EMERGENCY MEDICAL AID. TALK WITH THE LOCAL SAFETY DEPARTMENT OR AUTHORITIES FOR THE PROCEDURES TO DISCARD THIS HAZARDOUS AGENT.			
(1)	Leak in system lines	Bubble soap lines	Repair leaks

Table 106 (Continued)

Possible Causes		Isolation Procedures	Correction
(2)	Defective quick- disconnect test fitting	Bubble soap fitting	Replace fitting
(3)	Defective diluter-demand regulator	Test diluter-demand regulator	Replace regulator

F. SYSTEM LOSES PRESSURE WITH DILUTER-DEMAND REGULATOR SUPPLY TOGGLE IN ON POSITION AND EMERGENCY TOGGLE IN NORMAL POSITION DURING LEAK TEST

Table 107

Possible Causes		Isolation Procedures	Correction
(1)	Diluter-demand regulator defective	Test diluter-demand regulator	Replace regulator
WARNING: LEAK TEST BUBBLE FLUID IS AN AGENT THAT IS AN IRRITANT. MAKE SURE ALL PERSONS OBEY THE PRECAUTIONS WHEN LEAK TEST BUBBLE FLUID IS USED. • USE IN AN AREA OPEN TO THE AIR. • CLOSE THE CONTAINER WHEN NOT USED. • DO NOT GET LEAK TEST BUBBLE FLUID IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES. • DO NOT BREATHE THE GAS.			
WARNING: REFER TO THE APPLICABLE MANUFACTURER'S OR SUPPLIER'S MSDS FOR: • MORE PRECAUTIONARY DATA • APPROVED SAFETY EQUIPMENT • EMERGENCY MEDICAL AID. TALK WITH THE LOCAL SAFETY DEPARTMENT OR AUTHORITIES FOR THE PROCEDURES TO DISCARD THIS HAZARDOUS AGENT.			
(2)	Leak in system lines	Bubble soap lines	Repair leaks

CREW OXYGEN SYSTEM - TROUBLE SHOOTING

1. Equipment and Materials

NOTE: Equivalent substitutes may be used instead of the following listed items:

NOTE: It is possible that some materials in the Equipment and Materials List cannot be used for some or all of their necessary applications. Before you use the materials, make sure the types, quantities, and applications of the materials necessary are legally permitted in your location. All persons must obey all applicable federal, state, local, and provincial laws and regulations when it is necessary to work with these materials.

Table 101

Name and Number	Manufacturer
Bubble fluid solution (MIL-L-25567) DPM 6045	

2. Trouble Shooting

A. NO SYSTEM GAGE ON MASK-MOUNTED DILUTER-DEMAND REGULATOR

Table 102

Possible Causes		Isolation Procedures	Correction
(1)	Cylinder shutoff valve closed		Open cylinder shutoff valve
(2)	Pressure regulator defective	Test regulator	Replace regulator
(3)	Mask-mounted diluter-demand regulator defective	Test diluter-demand regulator	Replace mask assembly
		Check supply hose connection in stowage box	Connect supply hose connector
WARNING: LEAK TEST BUBBLE FLUID IS AN AGENT THAT IS AN IRRITANT. MAKE SURE ALL PERSONS OBEY THE PRECAUTIONS WHEN LEAK TEST BUBBLE FLUID IS USED. • USE IN AN AREA OPEN TO THE AIR. • CLOSE THE CONTAINER WHEN NOT USED. • DO NOT GET LEAK TEST BUBBLE FLUID IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES. • DO NOT BREATHE THE GAS.			
WARNING: REFER TO THE APPLICABLE MANUFACTURER'S OR SUPPLIER'S MSDS FOR: • MORE PRECAUTIONARY DATA • APPROVED SAFETY EQUIPMENT • EMERGENCY MEDICAL AID. TALK WITH THE LOCAL SAFETY DEPARTMENT OR AUTHORITIES FOR THE PROCEDURES TO DISCARD THIS HAZARDOUS AGENT.			
(4)	System lines leak	Bubble soap lines	Repair leaks

B. NO DILUTED OXYGEN FLOW THROUGH MASK-MOUNTED DILUTER-DEMAND REGULATOR (NO BLINKER INDICATION)

Table 103

Possible Causes		Isolation Procedures	Correction
(1)	Pressure regulator defective	Test regulator	Replace regulator
(2)	Mask-mounted diluter-demand regulator defective	Test diluter-demand regulator	Replace mask assembly
		Check supply hose connection in stowage box	Connect supply hose connector

C. NO 100% OXYGEN FLOW THROUGH MASK-MOUNTED DILUTER-DEMAND REGULATOR (NO FLOW TO MASK)

Table 104

Possible Causes		Isolation Procedures	Correction
(1)	Pressure regulator defective	Test regulator	Replace regulator
(2)	Mask-mounted diluter-demand regulator defective	Test diluter-demand regulator	Replace mask assembly

D. NO OXYGEN FLOW TO MASK (NO BLINKER INDICATION)

Table 105

Possible Causes		Isolation Procedures	Correction
(1)	Pressure regulator defective	Test regulator	Replace regulator
(2)	Mask-mounted diluter-demand regulator defective	Test diluter-demand regulator	Replace mask assembly
(3)	Mask hose connector damaged or disconnected	Check supply hose connection in stowage box	Replace stowage box or connect supply hose connection
		Check system supply hose connection at stowage box	Replace damaged hose or connect hose

E. SYSTEM LOSES PRESSURE DURING LEAK TEST

Table 106

Possible Causes		Isolation Procedures	Correction
WARNING: LEAK TEST BUBBLE FLUID IS AN AGENT THAT IS AN IRRITANT. MAKE SURE ALL PERSONS OBEY THE PRECAUTIONS WHEN LEAK TEST BUBBLE FLUID IS USED. **USE IN AN AREA OPEN TO THE AIR.** **CLOSE THE CONTAINER WHEN NOT USED.** **DO NOT GET LEAK TEST BUBBLE FLUID IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES.** **DO NOT BREATHE THE GAS.**			
WARNING: REFER TO THE APPLICABLE MANUFACTURER'S OR SUPPLIER'S MSDS FOR: **MORE PRECAUTIONARY DATA** **APPROVED SAFETY EQUIPMENT** **EMERGENCY MEDICAL AID.** TALK WITH THE LOCAL SAFETY DEPARTMENT OR AUTHORITIES FOR THE PROCEDURES TO DISCARD THIS HAZARDOUS AGENT.			
(1)	Leak in system lines	Bubble soap lines	Repair leaks
(2)	Defective quick- disconnect test fitting	Bubble soap fitting	Replace fitting
(3)	Defective stowage box valve	Check blinker for yellow flow indication	Replace stowage box
		Bubble soap shutoff valve	

F. SYSTEM LOSES PRESSURE WITH MASK-MOUNTED DILUTER-DEMAND REGULATOR CONTROL IN N (UP) POSITION DURING LEAK TEST

Table 107

Possible Causes		Isolation Procedures	Correction
(1)	Mask-mounted diluter-demand regulator defective	Test diluter-demand regulator	Replace mask assembly

Table 107 (Continued)

Possible Causes	Isolation Procedures	Correction
WARNING: LEAK TEST BUBBLE FLUID IS AN AGENT THAT IS AN IRRITANT. MAKE SURE ALL PERSONS OBEY THE PRECAUTIONS WHEN LEAK TEST BUBBLE FLUID IS USED. • USE IN AN AREA OPEN TO THE AIR. • CLOSE THE CONTAINER WHEN NOT USED. • DO NOT GET LEAK TEST BUBBLE FLUID IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES. • DO NOT BREATHE THE GAS.		
WARNING: REFER TO THE APPLICABLE MANUFACTURER'S OR SUPPLIER'S MSDS FOR: • MORE PRECAUTIONARY DATA • APPROVED SAFETY EQUIPMENT • EMERGENCY MEDICAL AID. TALK WITH THE LOCAL SAFETY DEPARTMENT OR AUTHORITIES FOR THE PROCEDURES TO DISCARD THIS HAZARDOUS AGENT.		
(2) Leak in system lines	Bubble soap lines	Repair leaks

CREW OXYGEN SYSTEM - TROUBLE SHOOTING

1. Equipment and Materials

NOTE: Equivalent substitutes may be used instead of the following listed items:

NOTE: It is possible that some materials in the Equipment and Materials List cannot be used for some or all of their necessary applications. Before you use the materials, make sure the types, quantities, and applications of the materials necessary are legally permitted in your location. All persons must obey all applicable federal, state, local, and provincial laws and regulations when it is necessary to work with these materials.

Table 101

Name and Number	Manufacturer
Bubble fluid solution (MIL-L-25567) DPM 6045	

2. Trouble Shooting

A. NO PRESSURE INDICATED ON ALL DILUTER-DEMAND REGULATOR GAGES

Table 102

	Possible Causes	Isolation Procedures	Correction
(1)	Cylinder shutoff valve closed		Open cylinder shutoff valve
(2)	Pressure regulator defective	Test regulator	Replace regulator
(3)	Diluter-demand regulator defective	Test diluter-demand regulator	Replace regulator
WJE		Check supply hose connection	Connect supply hose
WARNING: LEAK TEST BUBBLE FLUID IS AN AGENT THAT IS AN IRRITANT. MAKE SURE ALL PERSONS OBEY THE PRECAUTIONS WHEN LEAK TEST BUBBLE FLUID IS USED. • USE IN AN AREA OPEN TO THE AIR. • CLOSE THE CONTAINER WHEN NOT USED. • DO NOT GET LEAK TEST BUBBLE FLUID IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES. • DO NOT BREATHE THE GAS.			
WARNING: REFER TO THE APPLICABLE MANUFACTURER'S OR SUPPLIER'S MSDS FOR: • MORE PRECAUTIONARY DATA • APPROVED SAFETY EQUIPMENT • EMERGENCY MEDICAL AID. TALK WITH THE LOCAL SAFETY DEPARTMENT OR AUTHORITIES FOR THE PROCEDURES TO DISCARD THIS HAZARDOUS AGENT.			
(4)	System lines leak	Bubble soap lines	Repair leaks

B. NO DILUTED OXYGEN FLOW THROUGH DILUTER-DEMAND REGULATOR (NO BLINKER INDICATION)

Table 103

	Possible Causes	Isolation Procedures	Correction
(1)	Pressure regulator defective	Test regulator	Replace regulator

Table 103 (Continued)

	Possible Causes		Isolation Procedures	Correction
WJE WJE	(2)	Mask-mounted regulator defective assembly	Test regulator	Replace mask

WJE WJE C. NO 100% OXYGEN FLOW THROUGH MASK-MOUNTED DILUTER-DEMAND REGULATOR (NO FLOW TO MASK)

Table 104

	Possible Causes		Isolation Procedures	Correction
	(1)	Pressure regulator defective	Test regulator	Replace regulator
WJE WJE	(2)	Mask-mounted regulator defective assembly	Test regulator	Replace mask

D. NO OXYGEN FLOW TO MASKS (NO BLINKER INDICATION)

Table 105

	Possible Causes		Isolation Procedures	Correction
	(1)	Pressure regulator defective	Test regulator	Replace regulator
WJE	(2)	Mask-mounted defective assembly	Test regulator	Replace mask
WJE WJE	(3)	Hose connector damaged or disconnected	Check mask hose connection	Replace or connect
WJE			Check system supply hose	Replace or connect

WJE E. SYSTEM LOSES PRESSURE DURING LEAK TEST

Table 106

Possible Causes			Isolation Procedures	Correction
WARNING: LEAK TEST BUBBLE FLUID IS AN AGENT THAT IS AN IRRITANT. MAKE SURE ALL PERSONS OBEY THE PRECAUTIONS WHEN LEAK TEST BUBBLE FLUID IS USED. **USE IN AN AREA OPEN TO THE AIR.** **CLOSE THE CONTAINER WHEN NOT USED.** **DO NOT GET LEAK TEST BUBBLE FLUID IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES.** **DO NOT BREATHE THE GAS.**				
WARNING: REFER TO THE APPLICABLE MANUFACTURER'S OR SUPPLIER'S MSDS FOR: **MORE PRECAUTIONARY DATA** **APPROVED SAFETY EQUIPMENT** **EMERGENCY MEDICAL AID.** TALK WITH THE LOCAL SAFETY DEPARTMENT OR AUTHORITIES FOR THE PROCEDURES TO DISCARD THIS HAZARDOUS AGENT.				
	(1)	Leak in system lines	Bubble soap lines	Repair leaks
	(2)	Defective quick- disconnect test fitting	Bubble soap fitting	Replace fitting
WJE	(3)	Defective outlet valve	Bubble soap outlet valve	Replace outlet valve

WJE WJE F. SYSTEM LOSES PRESSURE WITH MASK-MOUNTED DILUTER-DEMAND REGULATOR CONTROL IN NORM POSITION DURING LEAK TEST

Table 107

Possible Causes		Isolation Procedures	Correction
(1)	Mask-mounted regulator defective regulator	Test diluter-demand regulator	Replace mask
WARNING: LEAK TEST BUBBLE FLUID IS AN AGENT THAT IS AN IRRITANT. MAKE SURE ALL PERSONS OBEY THE PRECAUTIONS WHEN LEAK TEST BUBBLE FLUID IS USED. • USE IN AN AREA OPEN TO THE AIR. • CLOSE THE CONTAINER WHEN NOT USED. • DO NOT GET LEAK TEST BUBBLE FLUID IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES. • DO NOT BREATHE THE GAS.			
WARNING: REFER TO THE APPLICABLE MANUFACTURER'S OR SUPPLIER'S MSDS FOR: • MORE PRECAUTIONARY DATA • APPROVED SAFETY EQUIPMENT • EMERGENCY MEDICAL AID. TALK WITH THE LOCAL SAFETY DEPARTMENT OR AUTHORITIES FOR THE PROCEDURES TO DISCARD THIS HAZARDOUS AGENT.			
(2)	Leak in system lines	Bubble soap lines	Repair leaks

CREW OXYGEN SYSTEM - MAINTENANCE PRACTICES

1. General

A. All crew oxygen system components are located in the flight compartment. The test procedures are arranged so tests can be performed on the complete system or any individual component. After completion of tests, the oxygen cylinder shutoff valve should be closed, and the system depressurized.

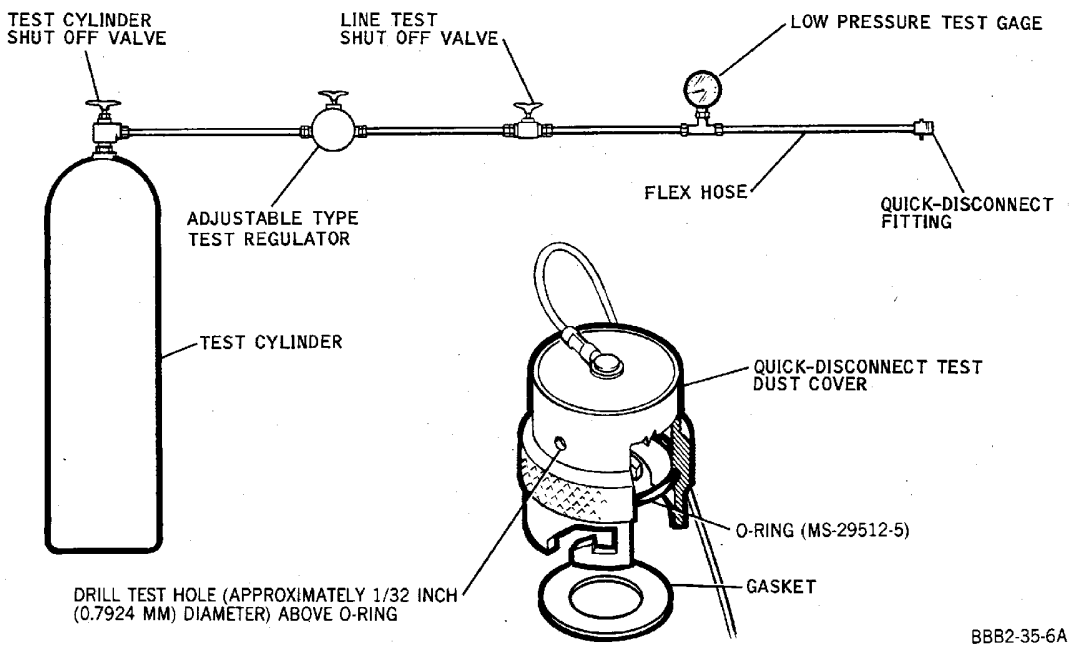
2. Equipment and Materials

NOTE: Equivalent substitutes may be used instead of the following listed items:

NOTE: It is possible that some materials in the Equipment and Materials List cannot be used for some or all of their necessary applications. Before you use the materials, make sure the types, quantities, and applications of the materials necessary are legally permitted in your location. All persons must obey all applicable federal, state, local, and provincial laws and regulations when it is necessary to work with these materials.

Table 201

Name and Number	Manufacturer
Pressure source	
Gas, nitrogen, dry, high purity DPM 154-2	Linde, Div. of Union Carbide Corp.
Test regulator	
Test shutoff valve (2)	
Low-pressure test gage	
Quick-disconnect coupler (110111-03)	Puritan
Dust cover (211014)	Puritan
Bubble fluid solution MIL-L-25567 DPM 6045	
NOTE: Test equipment can be assembled as shown in Figure 201.	



Crew Oxygen System -- Test Assembly
Figure 201/35-10-00-990-817

3. Adjustment/Test Crew System

A. System Leak Test

WARNING: USE EXTREME CARE TO PREVENT OXYGEN SYSTEM OR ANY OF ITS COMPONENTS FROM BECOMING CONTAMINATED WITH GREASE OR OIL.

(1) Close crew cylinder shutoff valve.

(2) Connect test assembly to quick-disconnect test fitting.

(3) Place all diluter-demand regulator supply toggles in the OFF position, diluter-demand toggles in NORMAL position, and emergency toggles in NORMAL position.

WARNING: MAKE SURE VALVES THAT CONTROL OXYGEN FLOW ARE OPENED SLOWLY. TEMPERATURE OF OXYGEN CYLINDER CAN INCREASE TO MORE THAN SAFE LIMIT. INJURY TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(4) Open test cylinder and line test shutoff valve.

(5) Adjust system pressure with test regulator to 100 psig (690.0 kPa), and close line test shutoff valve. There should be no flow from the diluter-demand regulators.

(6) Allow 5 minutes for temperature equalization, tap test pressure gage lightly, and record pressure and temperature. There should be no pressure decay. After 15 minutes, again check pressure and temperature.

NOTE: To determine pressure decay, refer to Figure 202 or Figure 203 as applicable.

WARNING: LEAK TEST BUBBLE FLUID IS AN AGENT THAT IS AN IRRITANT. MAKE SURE ALL PERSONS OBEY THE PRECAUTIONS WHEN LEAK TEST BUBBLE FLUID IS USED.

- USE IN AN AREA OPEN TO THE AIR.
- CLOSE THE CONTAINER WHEN NOT USED.
- DO NOT GET LEAK TEST BUBBLE FLUID IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES.
- DO NOT BREATHE THE GAS.

WARNING: REFER TO THE APPLICABLE MANUFACTURER'S OR SUPPLIER'S MSDS FOR:

- MORE PRECAUTIONARY DATA
- APPROVED SAFETY EQUIPMENT
- EMERGENCY MEDICAL AID.

TALK WITH THE LOCAL SAFETY DEPARTMENT OR AUTHORITIES FOR THE PROCEDURES TO DISCARD THIS HAZARDOUS AGENT.

CAUTION: KEEP BUBBLE FLUID SOLUTION OUT OF VALVES AND FITTINGS. IMMEDIATELY CLEAN AND DRY ALL PARTS AFTER TEST. THIS WILL PREVENT DAMAGE TO EQUIPMENT.

(7) If there is pressure decay, proceed as follows:

(a) Locate leak using bubble fluid solution.

(b) Depressurize system.

(c) Repair leak.

(d) Repeat test.

(8) Close test cylinder shutoff valve.

(9) Place any one regulator emergency toggle in TEST MASK position to bleed system pressure.

(10) Test supply line with regulators as follows:

(a) On all diluter-demand regulators, place supply toggles in ON position, emergency toggles in NORMAL position, and diluter toggles in NORMAL position.

(b) Slowly open test cylinder and line test shutoff valve.

(c) Adjust system pressure to 100 psig (690.0 kPa), and close line test shutoff valve.

(d) Allow 5 minutes for temperature equalization, tap test pressure gage lightly, and record pressure and temperature. After 15 minutes, again check pressure and temperature.

NOTE: To determine pressure decay, see Figure 202 or Figure 203, as applicable.

(e) If pressure decay exceeds 21 psig (144.9 kPa) (gage from 100 - 79 psig) (690.0 - 545.1 kPa), isolate leak or leaking regulator and repeat the test. Isolating a leaking regulator may be accomplished by removing one regulator at a time and plugging supply line to removed regulator.

Table 202

Number of Diluter Demand Regulators Installed in System	Pressure Decay Limit Fifteen (15) Minutes
3	21 PSI (144.9 kPa)
2	14 PSI (96.6 kPa)

Table 202 (Continued)

Number of Diluter Demand Regulators Installed in System	Pressure Decay Limit Fifteen (15) Minutes
1	7 PSI (48.3 kPa)
0	0

(f) Close test cylinder shutoff valve.

(g) Place any one regulator emergency toggle in TEST MASK position to bleed system pressure.

(11) Remove test assembly and install quick-disconnect test fitting dust cover.

B. Test Diluter-Demand Regulator

NOTE: Use oxygen for this test. Test procedures are identical for each crew regulator.

(1) Place diluter-demand regulator supply toggle in OFF position and diluter toggle in NORMAL OXYGEN position.

(2) Connect mask hose to oxygen outlet connector.

(3) Blow gently into open end of hose. There should be a positive and continued resistance to blowing. A slight resistance indicates an internal leak and regulator should be replaced.

WJE 405-411, 880, 881, 883, 884

WARNING: MAKE SURE VALVES THAT CONTROL OXYGEN FLOW ARE OPENED SLOWLY. TEMPERATURE OF OXYGEN CYLINDER CAN INCREASE TO MORE THAN SAFE LIMIT. INJURY TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

WJE 401-404, 873-879, 886, 887, 892, 893

WARNING: OPEN CYLINDER SHUTOFF VALVE SLOWLY TO AVOID POSSIBILITY OF FIRE IF OXYGEN IS USED FOR TESTING.

WJE 401-411, 873-881, 883, 884, 886, 887, 892, 893

(4) Open crew oxygen cylinder shutoff valve.

(5) Adjust system pressure 50 to 75 psig (345.0 to 517.5 kPa) with regulator.

(6) Place supply toggle in ON position and diluter toggle to 100% OXYGEN position.

(7) Take several breaths from open end of hose. Flow should be obtained freely, and black and white segments should appear alternately in flow indicator with each breath. If an uncomfortable amount of suction is required to obtain flow of oxygen, replace regulator.

(8) Place supply toggle in ON position, diluter toggle in 100% OXYGEN position, and emergency toggle in EMERGENCY position.

NOTE: Safety pin must be removed from emergency toggle before toggle can be placed in EMERGENCY position.

(9) There should be a steady flow of oxygen through hose; if not, replace diluter-demand regulator.

(10) Close crew oxygen cylinder shutoff valve.

(11) Place any one regulator emergency toggle in TEST MASK position to bleed system pressure.

(12) Place all crew diluter-demand regulator diluter toggles in 100% OXYGEN position.

(13) Safety all crew diluter-demand regulator supply toggles in ON position, with exception of observer's regulator.

C. Test Supply Pressure Regulator

NOTE: Use oxygen for this test.

(1) Connect test assembly to quick-disconnect test fitting and close line test shutoff valve.

WJE 401-404, 873-879, 886, 887, 892, 893

(2) Make sure all diluter-demand regulator supply toggles are in ON position.

WJE 405-411, 880, 881, 883, 884

(3) Place all diluter-demand regulator supply toggles in ON position.

WJE 401-404, 873-879, 886, 887, 892, 893

WARNING: MAKE SURE VALVES THAT CONTROL OXYGEN FLOW ARE OPENED SLOWLY. TEMPERATURE OF OXYGEN CYLINDER CAN INCREASE TO MORE THAN SAFE LIMIT. INJURY TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(4) Open crew cylinder shutoff valve. Test pressure gage should indicate 50 to 75 psig (345.0 to 517.5 kPa); if not, replace regulator.

WJE 405-411, 880, 881, 883, 884

(5) Open crew cylinder shutoff valve. If cylinder pressure on cylinder supply gage is 1500 psig (10,3452.0 kPa) or higher, test pressure gage should indicate 110 to 170 psig (759.0 to 1173.0 kPa); if not, replace regulator. If cylinder pressure on cylinder supply gage is 500-1500 psig (3447.0 to 10,342.0 kPa), test pressure gage should indicate 50 to 150 psig (345.0 to 1035.0 kPa); if not, replace regulator.

WJE 401-404, 873-879, 886, 887, 892, 893

(6) Place any one diluter-demand regulator emergency toggle in TEST MASK position. Oxygen should flow through regulator and test pressure gage should maintain 50 to 75 psig (345.0 to 517.5 kPa); if not, replace system supply pressure regulator.

WJE 405-411, 880, 881, 883, 884

(7) Place any one diluter-demand regulator emergency toggle in TEST MASK position. Oxygen should flow through regulator and test pressure gage should maintain pressures specified in Paragraph 3.C.(5); if not, replace system supply pressure regulator.

WJE 401-411, 873-881, 883, 884, 886, 887, 892, 893

(8) Close crew cylinder shutoff valve.

(9) Place any one regulator emergency toggle in TEST MASK position to bleed system pressure.

(10) Remove test assembly and install quick-disconnect test fitting dust cover.

D. Test Quick-Disconnect Test Fitting

(1) Purge system as follows if nitrogen is used for testing.

NOTE: Purge procedures are identical and must be performed on each crew regulator.

WARNING: OPEN CYLINDER SHUTOFF VALVE SLOWLY TO AVOID POSSIBILITY OF FIRE.

(a) Open crew cylinder shutoff valve.

(b) Place any one regulator supply toggle in ON position, diluter toggle to 100% OXYGEN position, and emergency toggle in TEST MASK position to purge system.

(2) Close crew cylinder shutoff valve, obtain a dust cover identical to the one attached to the test fitting. Remove rubber gasket and drill small hole through sidewall above O-ring. (Figure 201)

WARNING: OPEN CYLINDER SHUTOFF VALVE SLOWLY TO AVOID POSSIBILITY OF FIRE.

(3) Open crew cylinder shutoff valve.

(4) Place test dust cover on quick-disconnect test fitting.

CAUTION: USE CARE TO PREVENT BUBBLE FLUID SOLUTION FROM ENTERING ANY VALVE OR FITTING. ALL TESTED PARTS MUST BE CLEANED AND DRIED IMMEDIATELY AFTER TESTING.

(5) Apply bubble fluid solution to hole in test dust cover. If there is leakage, replace fitting and repeat test.

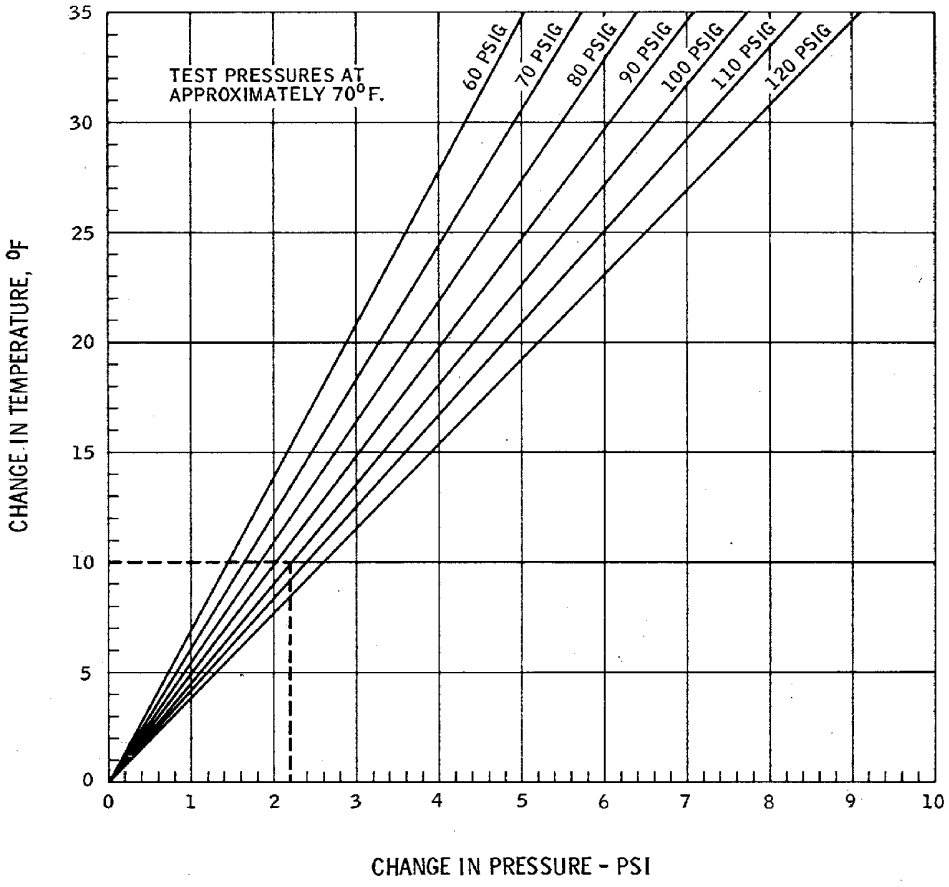
(6) Remove test dust cover and install original dust cover.

(7) Close crew cylinder shutoff valve.

(8) Place any one regulator emergency toggle in TEST MASK position to bleed system pressure.

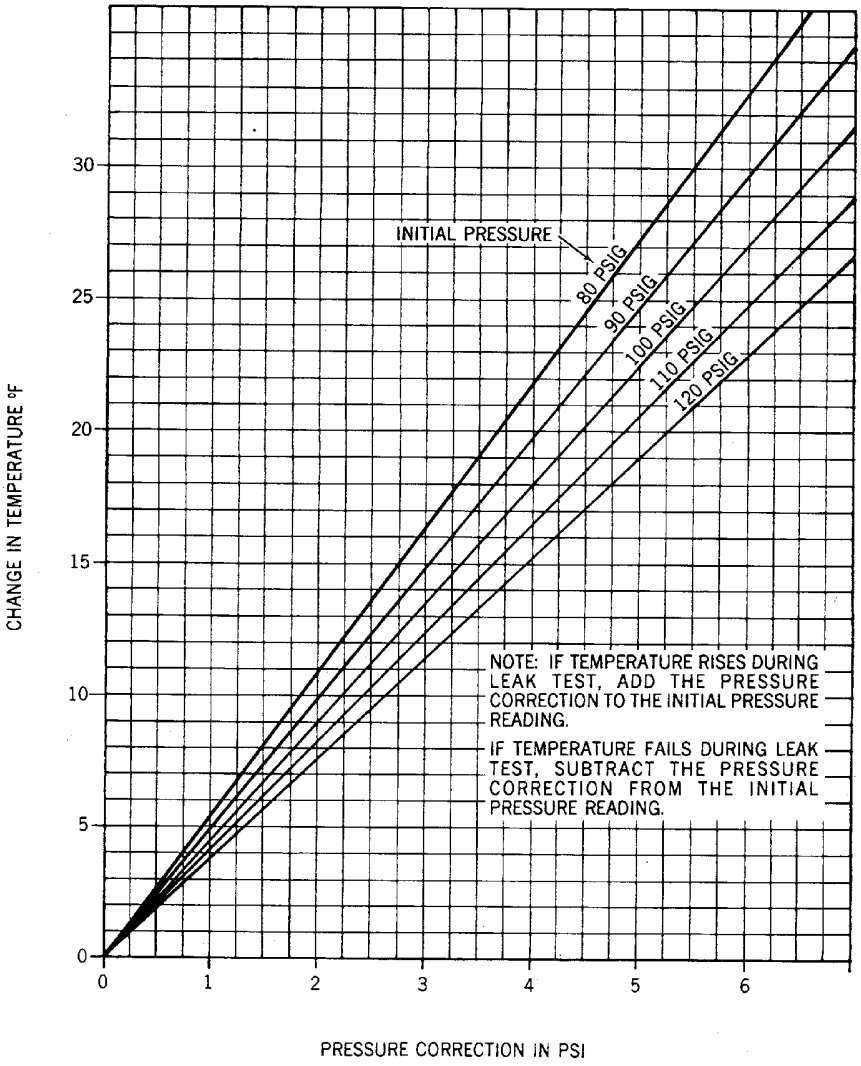
EXAMPLE: SYSTEM IS PRESSURIZED TO 100 PSIG AT 70°F. AFTER 30 MINUTES, SYSTEM PRESSURE DROPS TO 98 PSIG AND TEMPERATURE RISES TO 80°F. DETERMINE ACTUAL PRESSURE DECAY.
FOLLOW 10°F CHANGE IN TEMPERATURE LINE TO INTERSECT 100 PSIG CURVE, READ 2.2 PSI PRESSURE CHANGE. IF NO DECAY, CORRECTED SYSTEM PRESSURE WOULD BE 100 PSIG + 2.2 PSI. THEREFORE, DECAY IS 102.2 PSIG -98 PSIG, OR 4.2 PSIG PRESSURE DECAY.

NOTE: ADD PRESSURE CHANGE FOR INCREASE IN TEMPERATURE. SUBTRACT PRESSURE CHANGE FOR DECREASE IN TEMPERATURE.



BBB2-35-7

Temperature Versus Pressure Correction Curve -- Oxygen
Figure 202/35-10-00-990-818



BBB2-35-8

Temperature Versus Pressure Correction Curve -- Nitrogen
Figure 203/35-10-00-990-819

CREW OXYGEN SYSTEM - MAINTENANCE PRACTICES

1. General

A. All crew oxygen system components are located in the flight compartment. The test procedures are arranged so tests can be performed on the complete system or any individual component. After completion of tests, the oxygen cylinder shutoff valve should be closed.

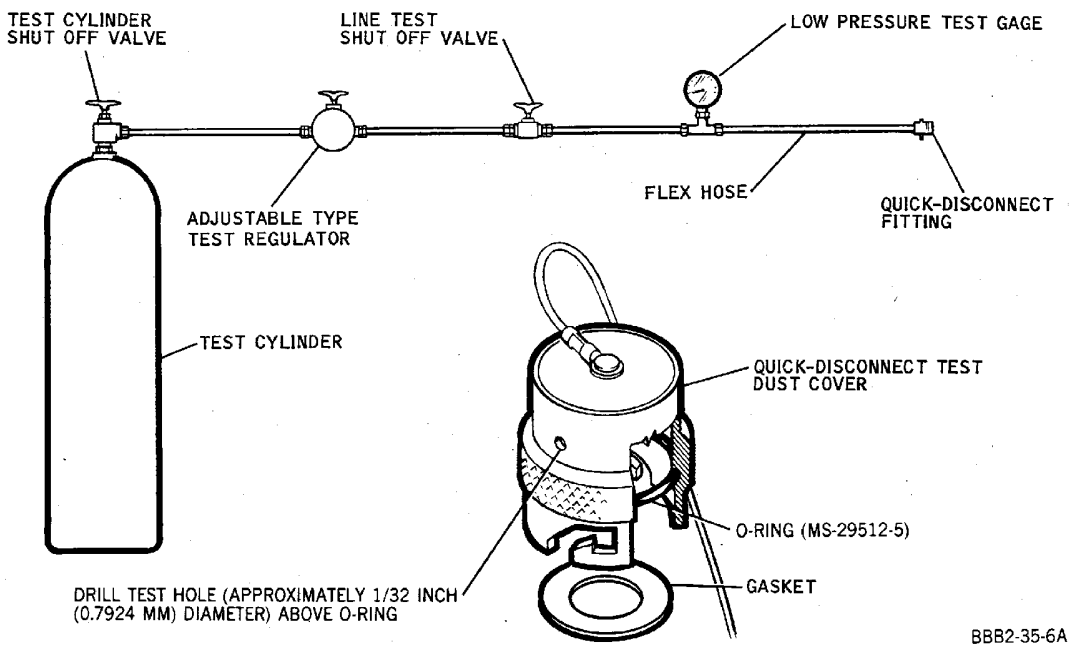
2. Equipment and Materials

NOTE: Equivalent substitutes may be used instead of the following listed items:

NOTE: It is possible that some materials in the Equipment and Materials List cannot be used for some or all of their necessary applications. Before you use the materials, make sure the types, quantities, and applications of the materials necessary are legally permitted in your location. All persons must obey all applicable federal, state, local, and provincial laws and regulations when it is necessary to work with these materials.

Table 201

Name and Number	Manufacturer
Pressure source	
Gas, nitrogen, dry, high purity DPM 154-2	Linde, Div. of Union Carbide Corp.
Test regulator	
Test shutoff valve (2)	
Low-pressure test gage	
Safety wire, annealed copper, 0.020 in. (0.51 mm) DPM 5680	
Quick-disconnect coupler (110111-03)	Puritan
Dust cover (211014)	Puritan
Bubble fluid solution MIL-L-25567 DPM 6045	
NOTE: Test equipment can be assembled as shown in Figure 201.	



Crew Oxygen System -- Test Assembly
Figure 201/35-10-00-990-820

3. Adjustment/Test Crew System

A. System Leak Test

WARNING: USE EXTREME CARE TO PREVENT OXYGEN SYSTEM OR ANY OF ITS COMPONENTS FROM BECOMING CONTAMINATED WITH GREASE OR OIL.

(1) Remove the annealed copper safety wire from the crew oxygen cylinder shutoff valve and close the crew oxygen cylinder shutoff valve.

(2) Connect test assembly to quick-disconnect test fitting.

WARNING: MAKE SURE THE VALVE THAT CONTROLS THE OXYGEN FLOW IS OPENED SLOWLY. THE TEMPERATURE OF THE OXYGEN CYLINDER CAN INCREASE TO MORE THAN THE SAFE LIMIT. INJURY TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(3) Open test cylinder and line test shutoff valve.

(4) Adjust system pressure with test regulator to 100 psig (690.0 kPa). There should be no flow from the mask-mounted diluter-demand regulators.

(5) With system pressure regulated to 100 psig (690.0 kPa), close line test shutoff valve.

(6) Allow 5 minutes for temperature equalization, tap test pressure gage lightly, and record pressure and temperature. After 15 minutes, again check pressure and temperature; there should be no pressure decay.

NOTE: To determine pressure decay, refer to Figure 202 or Figure 203 as applicable.

WARNING: LEAK TEST BUBBLE FLUID IS AN AGENT THAT IS AN IRRITANT. MAKE SURE ALL PERSONS OBEY THE PRECAUTIONS WHEN LEAK TEST BUBBLE FLUID IS USED.

- USE IN AN AREA OPEN TO THE AIR.
- CLOSE THE CONTAINER WHEN NOT USED.
- DO NOT GET LEAK TEST BUBBLE FLUID IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES.
- DO NOT BREATHE THE GAS.

WARNING: REFER TO THE APPLICABLE MANUFACTURER'S OR SUPPLIER'S MSDS FOR:

- MORE PRECAUTIONARY DATA
- APPROVED SAFETY EQUIPMENT
- EMERGENCY MEDICAL AID.

TALK WITH THE LOCAL SAFETY DEPARTMENT OR AUTHORITIES FOR THE PROCEDURES TO DISCARD THIS HAZARDOUS AGENT.

CAUTION: KEEP BUBBLE FLUID OUT OF VALVES AND FITTINGS. IMMEDIATELY CLEAN AND DRY ALL PARTS AFTER TEST. THIS WILL PREVENT DAMAGE TO EQUIPMENT.

(7) If there is pressure decay, proceed as follows:

(a) Locate leak using bubble fluid solution.

(b) Repair leak.

(c) Repeat test.

(8) Close test cylinder shutoff valve.

(9) Remove test assembly and install quick-disconnect test fitting dust cover.

(10) Install annealed copper safety wire to the crew oxygen cylinder shutoff valve.

B. Test Mask-Mounted Diluter-Demand Regulator

NOTE: Use oxygen for this test. Test procedures are identical for each crew mask-mounted regulator.

(1) Connect test assembly to quick-disconnect test fitting.

(2) Check that following circuit breakers are closed:

LOWER EPC, XFER BUS

Row	Col	Number	Name
T	42	B10-386	FLIGHT INTERPHONE -2

OVERHEAD EMERGENCY DC BUS

Row	Col	Number	Name
A	10	B10-47	FLIGHT INTERPHONE-1
B	8	B10-7	VHF COMM-1

UPPER EPC, RIGHT RADIO DC BUS

Row	Col	Number	Name
G	5	B10-44	VHF COMM-2

WARNING: MAKE SURE THE VALVE THAT CONTROLS THE OXYGEN FLOW IS OPENED SLOWLY. THE TEMPERATURE OF THE OXYGEN CYLINDER CAN INCREASE TO MORE THAN THE SAFE LIMIT. INJURY TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(3) Open test cylinder and line test shutoff valve.

(4) Adjust system pressure to 82(±12) psi (565.4(±83.0) kPa) with test regulator.

(5) Fully push RESET TEST slide control (1) on stowage box, to TEST position and hold. Blinker indicator (2) should show yellow momentarily and then return to black indicating that valve has opened and regulator is pressurized. (Figure 204)

NOTE: RESET TEST slide control (1) will return to closed position automatically if released.

(6) On diluter-demand mask-mounted regulator, push emergency manual control (3) into PRESS TO TEST position for approximately one to two seconds, blinker indicator should show yellow momentarily and then return to black, indicating that regulator is delivering oxygen into mask.

(7) While conducting Paragraph 3.B.(6), press intercom PRESS TO TALK switch. If steady hiss is heard over intercom, mask microphone is operating.

(8) Release RESET TEST slide control (1), slide control should automatically return to closed position, regulator and pipe to blinker indicator pressure should bleed off. Blinker indicator yellow range should disappear.

(9) Close test cylinder shutoff valve.

(10) Remove test assembly and install quick-disconnect test fitting dust cover.

C. Test Supply Pressure Regulator

NOTE: Use oxygen for this test.

(1) Connect test assembly to quick-disconnect test fitting and close line test shutoff valve.

WARNING: OPEN CYLINDER SHUTOFF VALVE SLOWLY TO AVOID POSSIBILITY OF FIRE.

(2) Open crew cylinder shutoff valve. Test pressure gage should indicate 70 to 94 psi (483.0 to 648.6 kPa); if not, replace regulator.

(3) Place any one mask-mounted diluter-demand regulator slide control (1) to RESET TEST and emergency control (3) to PRESS TO TEST position. Oxygen should flow through regulator and test pressure gage should maintain 70 to 94 psi (483.0 to 648.6 kPa); if not replace system supply pressure regulator.

(4) Close crew cylinder shutoff valve.

(5) Remove test assembly and install quick-disconnect test fitting dust cover.

D. Test Quick-disconnect Test Fitting

(1) Obtain dust cover identical to one attached to test fitting. Remove rubber gasket and drill small hole through sidewall above O-ring. (Figure 201)

WARNING: MAKE SURE THE VALVE THAT CONTROLS THE OXYGEN FLOW IS OPENED SLOWLY. THE TEMPERATURE OF THE OXYGEN CYLINDER CAN INCREASE TO MORE THAN THE SAFE LIMIT. INJURY TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(2) Open crew cylinder shutoff valve.

(3) Place test dust cover on quick-disconnect test fitting.

WARNING: LEAK TEST BUBBLE FLUID IS AN AGENT THAT IS AN IRRITANT. MAKE SURE ALL PERSONS OBEY THE PRECAUTIONS WHEN LEAK TEST BUBBLE FLUID IS USED.

- USE IN AN AREA OPEN TO THE AIR.
- CLOSE THE CONTAINER WHEN NOT USED.
- DO NOT GET LEAK TEST BUBBLE FLUID IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES.
- DO NOT BREATHE THE GAS.

WARNING: REFER TO THE APPLICABLE MANUFACTURER'S OR SUPPLIER'S MSDS FOR:

- MORE PRECAUTIONARY DATA
- APPROVED SAFETY EQUIPMENT
- EMERGENCY MEDICAL AID.

TALK WITH THE LOCAL SAFETY DEPARTMENT OR AUTHORITIES FOR THE PROCEDURES TO DISCARD THIS HAZARDOUS AGENT.

CAUTION: KEEP BUBBLE FLUID OUT OF VALVES AND FITTINGS. IMMEDIATELY CLEAN AND DRY ALL PARTS AFTER TEST. THIS WILL PREVENT DAMAGE TO EQUIPMENT.

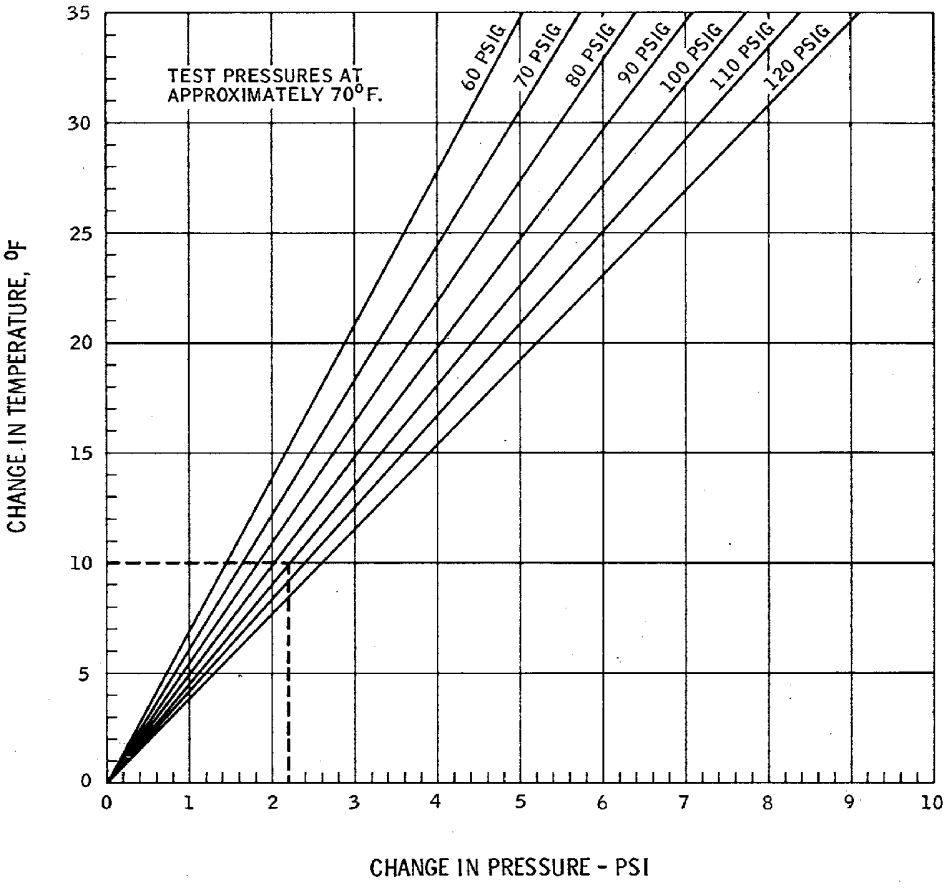
(4) Apply bubble fluid solution to hole in test dust cover. If there is leakage, replace fitting and repeat test.

(5) Remove test dust cover and install original dust cover.

(6) Close crew cylinder shutoff valve.

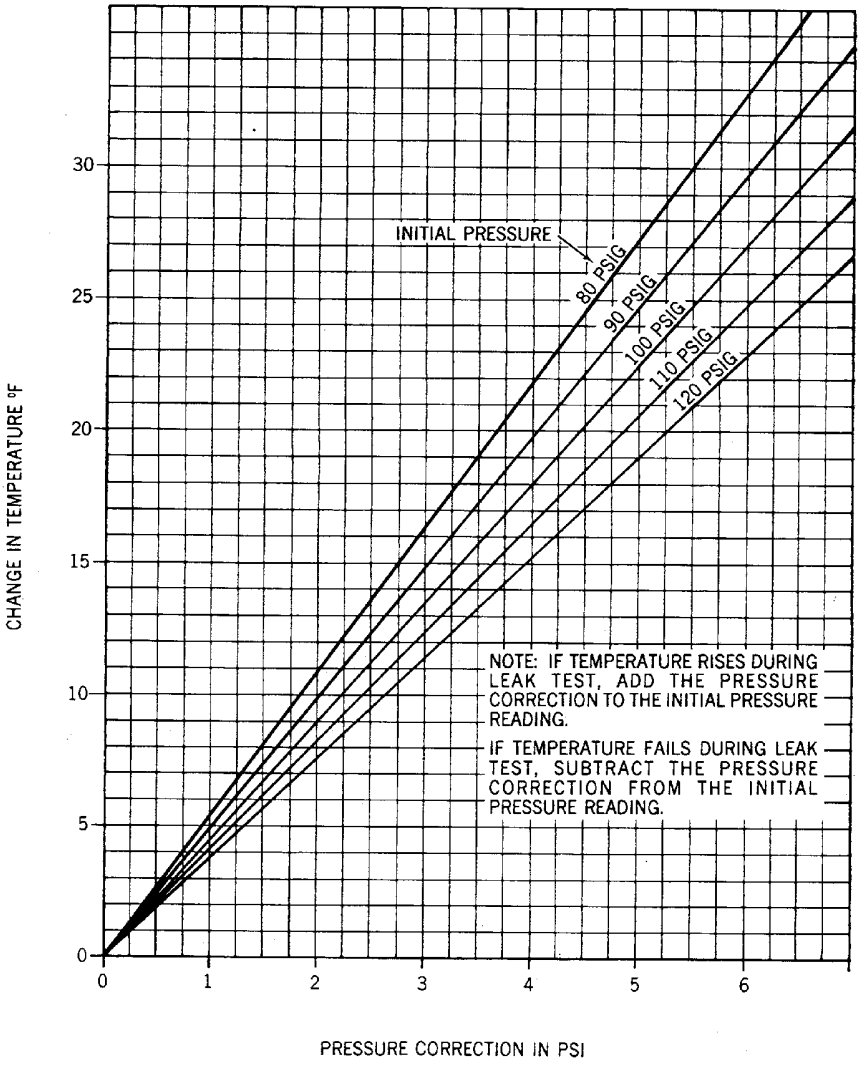
EXAMPLE: SYSTEM IS PRESSURIZED TO 100 PSIG AT 70°F. AFTER 30 MINUTES, SYSTEM PRESSURE DROPS TO 98 PSIG AND TEMPERATURE RISES TO 80°F. DETERMINE ACTUAL PRESSURE DECAY.
FOLLOW 10°F CHANGE IN TEMPERATURE LINE TO INTERSECT 100 PSIG CURVE, READ 2.2 PSI PRESSURE CHANGE. IF NO DECAY, CORRECTED SYSTEM PRESSURE WOULD BE 100 PSIG + 2.2 PSI. THEREFORE, DECAY IS 102.2 PSIG -98 PSIG, OR 4.2 PSIG PRESSURE DECAY.

NOTE: ADD PRESSURE CHANGE FOR INCREASE IN TEMPERATURE. SUBTRACT PRESSURE CHANGE FOR DECREASE IN TEMPERATURE.

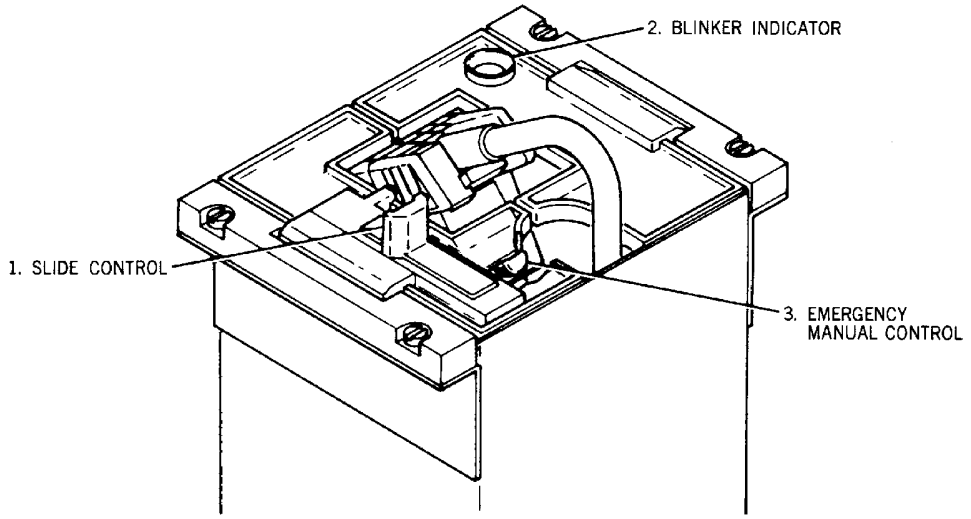


BBB2-35-7

Temperature Versus Pressure Correction Curve -- Oxygen
Figure 202/35-10-00-990-821



Temperature Versus Pressure Correction Curve -- Nitrogen
Figure 203/35-10-00-990-822



Crew Oxygen Mask and Stowage Box
Figure 204/35-10-00-990-823

WJE

CREW - MAINTENANCE PRACTICES

WJE

1. General

WJE A. The crew oxygen system components are located in the flight compartment. The test procedures are arranged so tests can be performed on the complete system or, any individual component. After completion of tests, the oxygen cylinder shutoff valve should be closed.

WJE

2. Equipment and Materials

WJE Refer to: B/E Aerospace CMM 35-10-60 for details about maintenance equipment and materials for the full-face mask.

WJE Refer to: B/E Aerospace CMM 35-10-61 for details about maintenance equipment and materials for the mask's Demand Regulator.

WJE NOTE: Equivalent substitutes may be used instead of the following listed items:

WJE NOTE: It is possible that some materials in the Equipment and Materials List cannot be used for some or all of their necessary applications. Before you use the materials, make sure the types, quantities, and applications of the materials necessary are legally permitted in your location. All persons must obey all applicable federal, state, and provincial laws and regulations when it is necessary to work with these materials.

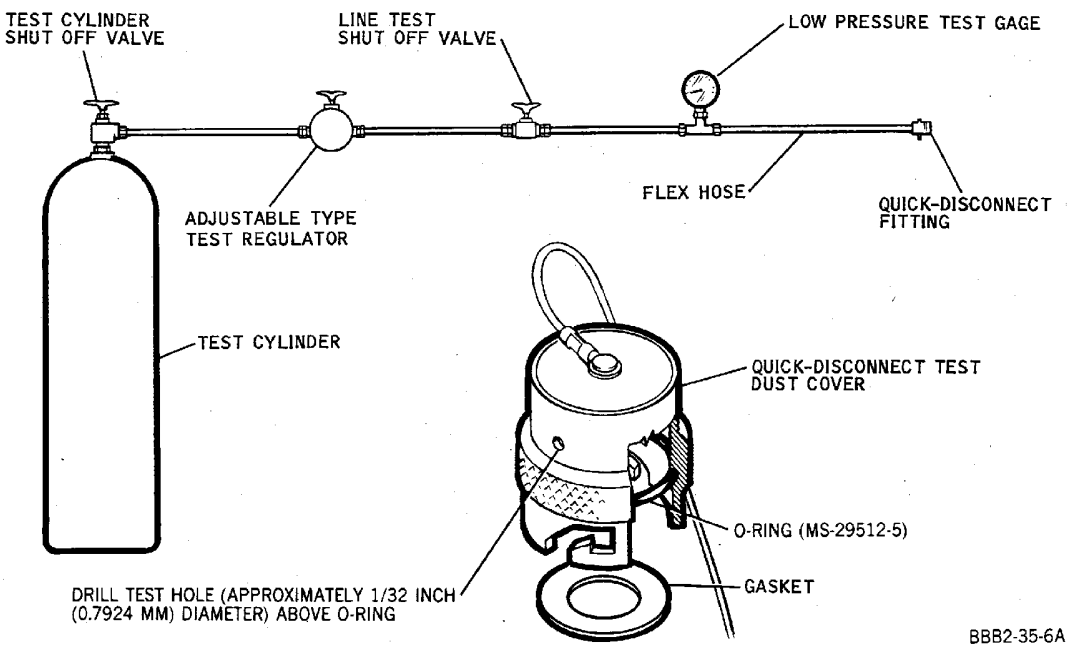
WJE

Table 201

WJE

Name and Number	Manufacturer
Pressure source	
Gas nitrogen, dry, high purity DPM 154-2	Linde, Div. of Union Carbide Corp.
Test regulator	
Test shutoff valve (2)	
Low-pressure test gauge	
Quick-disconnect coupler (110111-03)	Puritan
Dust cover (211014)	Puritan
Bubble fluid solution MIL-L-25567 DPM 6045	
NOTE: Test equipment can be assembled as shown in Figure 201.	

WJE



Crew Oxygen System -- Test Assembly
Figure 201/35-10-00-990-824

WJE 3. **Adjustment/Test Crew System**

WJE A. System Leak Test

WJE **WARNING:** USE EXTREME CARE TO PREVENT OXYGEN SYSTEM OR ANY OF ITS COMPONENTS FROM BECOMING CONTAMINATED WITH GREASE OR OIL.

WJE NOTE: Begin test without masks installed.

WJE (1) Close crew cylinder shutoff valve.

WJE (2) Connect test assembly to quick-disconnect test fitting.

WJE **WARNING:** MAKE SURE THE VALVE THAT CONTROLS THE OXYGEN FLOW IS OPENED SLOWLY. THE TEMPERATURE OF THE OXYGEN CYLINDER CAN INCREASE TO MORE THAN THE SAFE LIMIT. INJURY TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

WJE (3) Open test cylinder and line test shutoff valve.

WJE (4) Adjust system pressure with test regulator to 95 psi (655.5 kPa).

WJE (5) With system pressure regulated to 95 psi (655.5 kPa), close line test shutoff valve.

WJE (6) Allow 5 minutes for temperature equalization, tap test pressure gauge lightly, and record pressure and temperature. After 15 minutes, again check pressure and temperature; there should be no pressure decay.

WJE NOTE: To determine pressure decay, refer to Figure 202 or 203 as applicable.

WJE **WARNING:** LEAK TEST BUBBLE FLUID IS AN AGENT THAT IS AN IRRITANT. MAKE SURE ALL PERSONS OBEY THE PRECAUTIONS WHEN LEAK TEST BUBBLE FLUID IS USED.

- USE IN AN AREA OPEN TO THE AIR.
- CLOSE THE CONTAINER WHEN NOT USED.
- DO NOT GET LEAK TEST BUBBLE FLUID IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES.
- DO NOT BREATHE THE GAS.

WJE **WARNING:** REFER TO THE APPLICABLE MANUFACTURER'S OR SUPPLIER'S MSDS FOR:

- MORE PRECAUTIONARY DATA
- APPROVED SAFETY EQUIPMENT
- EMERGENCY MEDICAL AID.

TALK WITH THE LOCAL SAFETY DEPARTMENT OR AUTHORITIES FOR THE PROCEDURES TO DISCARD THIS HAZARDOUS AGENT.

WJE **CAUTION:** KEEP BUBBLE FLUID OUT OF VALVES AND FITTINGS. IMMEDIATELY CLEAN AND DRY ALL PARTS AFTER TEST. THIS WILL PREVENT DAMAGE TO EQUIPMENT.

WJE (7) If there is pressure decay, proceed as follows:

WJE (a) Locate leak using bubble fluid solution.

WJE (b) Depressurize system.

WJE (c) Repair leak.

WJE (d) Repeat test.

WJE (8) Close test cylinder shutoff valve.

WJE (9) Install crew oxygen masks.

WJE NOTE: The Crew Oxygen Mask demand regulator assembly recommended position for test is 100%. The NORMAL setting is also acceptable.

WJE (10) Open test cylinder and line test shutoff valve.

WJE (11) Adjust system pressure with test regulator to 95 psi (655.5 kPa). There should be no flow from the mask-mounted diluter-demand regulators.

WJE (12) With system pressure regulated to 95 psi (655.5 kPa), close line test shutoff valve.

WJE (13) Allow 5 minutes for temperature equalization, tap test pressure gauge lightly, and record pressure and temperature. After 15 minutes, again check pressure and temperature; pressure decay shall not exceed 8 psi (55.2 kPa).

WJE NOTE: To determine pressure decay, refer to Figure 202 or Figure 203 as applicable.

WJE (14) If there is pressure decay that exceeds 8 psi (55.2 kPa), isolate leaking mask and repeat the test. Isolating a leaking mask may be accomplished by removing one at a time and repeat the test. If pressure decay is less than 6 psi (41.4 kPa), the removed mask must be replaced. Repeat the test Paragraph 3.A.(9) through Paragraph 3.A.(13).

WJE (15) Close test cylinder shutoff valve.

WJE (16) Remove test assembly and install quick-disconnect test fitting dust cover.

WJE B. Test Mask-Mounted Diluter-Demand Regulator

WJE NOTE: Use oxygen for this test. Test procedures are identical for each crew mask-mounted regulator.

WJE NOTE: The following test should be performed with all three crew oxygen masks installed.

WJE Refer to: B/E Aerospace CMM 35-10-60 for details about testing and fault isolation for the full face mask.

WJE Refer to: B/E Aerospace CMM 35-10-61 for details about testing and fault isolation for the masks' Demand Regulator.

WJE (1) Connect test assembly to quick-disconnect test fitting.

WJE (2) Check that the following circuit breakers are closed:

WJE **LOWER EPC, XFER BUS**

Row	Col	Number	Name
T	42	B10-386	FLIGHT INTERPHONE -2

WJE **OVERHEAD EMERGENCY DC BUS**

Row	Col	Number	Name
A	10	B10-47	FLIGHT INTERPHONE-1
B	8	B10-7	VHF COMM-1

WJE **UPPER EPC, RIGHT RADIO DC BUS**

Row	Col	Number	Name
G	5	B10-44	VHF COMM-2

WJE **WARNING:** MAKE SURE THE VALVE THAT CONTROLS THE OXYGEN FLOW IS OPENED SLOWLY. THE TEMPERATURE OF THE OXYGEN CYLINDER CAN INCREASE TO MORE THAN THE SAFE LIMIT. INJURY TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

WJE (3) Open test cylinder and line test shutoff valve.

WJE (4) Adjust system pressure to 82 (± 12) psi (565.4 (± 83.0) kPa) with test regulator.

WJE (5) On diluter-demand mask-mounted regulator, place regulator knob in the emergency position for approximately one to two seconds. Blinker indicator should show RED briefly, and then return to GREEN, indicating the regulator is delivering oxygen to mask.

WJE (6) While conducting Paragraph 3.B.(5), press intercom PRESS TO TALK switch. If a steady hiss is heard over the intercom, the mask microphone is operating.

WJE (7) Press the red inflation button on the demand regulator. The harness assembly must inflate smoothly within 1.5 seconds.

WJE (8) Release the red inflation button on the demand regulator. The harness assembly shall deflate smoothly within 1.5 seconds.

WJE (9) If audible leakage at the hose assembly connector is present, or if the pressure detector, microphone, or harness assembly did not function properly, replace the mask and retest.

WJE (10) Close test cylinder shutoff valve.

WJE (11) Remove test assembly and install quick-disconnect test fitting dust cover.

WJE C. Test Supply Pressure Regulator

WJE NOTE: Use oxygen for this test.

WJE (1) Connect test assembly to quick-disconnect test fitting and close line test shutoff valve.

WJE **WARNING:** OPEN CYLINDER SHUTOFF VALVE SLOWLY TO AVOID POSSIBILITY OF FIRE.

WJE (2) Open crew cylinder shutoff valve. Test pressure gage should indicate 70 to 94 psi (483.0 to
WJE 648.6 kPa); if not, replace regulator.

WJE (3) Place any one mask-mounted diluter demand regulator to EMERG position. Oxygen should
WJE flow through the regulator. The test pressure gauge should maintain 70 to 94 psi (483.0 to
WJE 648.6 kPa). If not, replace the system supply pressure regulator.

WJE (4)

WJE Close crew cylinder shutoff valve.

WJE (5) Remove test assembly and install quick-disconnect test fitting dust cover.

WJE D. Test Quick-Disconnect Test Fitting

WJE (1) Obtain dust cover identical to one attached to test fitting. Remove rubber gasket and drill small
WJE hole through sidewall above O-ring. (Figure 201)

WJE **WARNING:** MAKE SURE THE VALVE THAT CONTROLS THE OXYGEN FLOW IS OPENED
WJE SLOWLY. THE TEMPERATURE OF THE OXYGEN CYLINDER CAN INCREASE TO
WJE MORE THAN THE SAFE LIMIT. INJURY TO PERSONS AND DAMAGE TO
WJE EQUIPMENT CAN OCCUR.

WJE (2) Open crew cylinder shutoff valve.

WJE (3) Place test dust cover on quick-disconnect test fitting.

WJE **WARNING:** LEAK TEST BUBBLE FLUID IS AN AGENT THAT IS AN IRRITANT. MAKE SURE ALL
WJE PERSONS OBEY THE PRECAUTIONS WHEN LEAK TEST BUBBLE FLUID IS USED.

WJE • USE IN AN AREA OPEN TO THE AIR.

WJE • CLOSE THE CONTAINER WHEN NOT USED.

WJE • DO NOT GET LEAK TEST BUBBLE FLUID IN THE EYES, ON THE SKIN, OR ON
WJE YOUR CLOTHES.

WJE • DO NOT BREATHE THE GAS.

WJE **WARNING:** REFER TO THE APPLICABLE MANUFACTURER'S OR SUPPLIER'S MSDS FOR:

WJE • MORE PRECAUTIONARY DATA

WJE • APPROVED SAFETY EQUIPMENT

WJE • EMERGENCY MEDICAL AID.

WJE TALK WITH THE LOCAL SAFETY DEPARTMENT OR AUTHORITIES FOR THE
WJE PROCEDURES TO DISCARD THIS HAZARDOUS AGENT.

WJE **CAUTION:** KEEP BUBBLE FLUID OUT OF VALVES AND FITTINGS. IMMEDIATELY CLEAN AND
WJE DRY ALL PARTS AFTER TEST. THIS WILL PREVENT DAMAGE TO EQUIPMENT.

WJE (4) Apply bubble fluid solution to hole in test dust cover. If there is a leakage, replace fitting and
WJE repeat test.

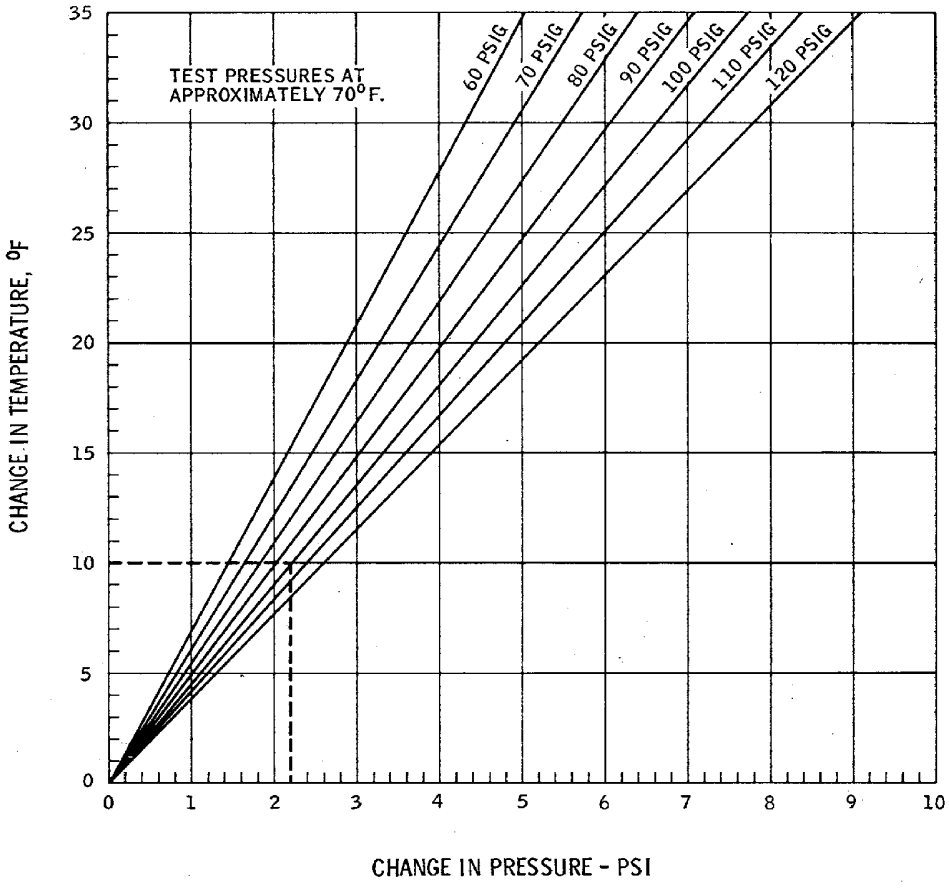
WJE (5) Remove test dust cover and install original dust cover.

WJE (6) Close crew cylinder shutoff valve.

WJE

EXAMPLE: SYSTEM IS PRESSURIZED TO 100 PSIG AT 70°F. AFTER 30 MINUTES, SYSTEM PRESSURE DROPS TO 98 PSIG AND TEMPERATURE RISES TO 80°F. DETERMINE ACTUAL PRESSURE DECAY.
FOLLOW 10°F CHANGE IN TEMPERATURE LINE TO INTERSECT 100 PSIG CURVE, READ 2.2 PSI PRESSURE CHANGE. IF NO DECAY, CORRECTED SYSTEM PRESSURE WOULD BE 100 PSIG + 2.2 PSI. THEREFORE, DECAY IS 102.2 PSIG -98 PSIG, OR 4.2 PSIG PRESSURE DECAY.

NOTE: ADD PRESSURE CHANGE FOR INCREASE IN TEMPERATURE. SUBTRACT PRESSURE CHANGE FOR DECREASE IN TEMPERATURE.



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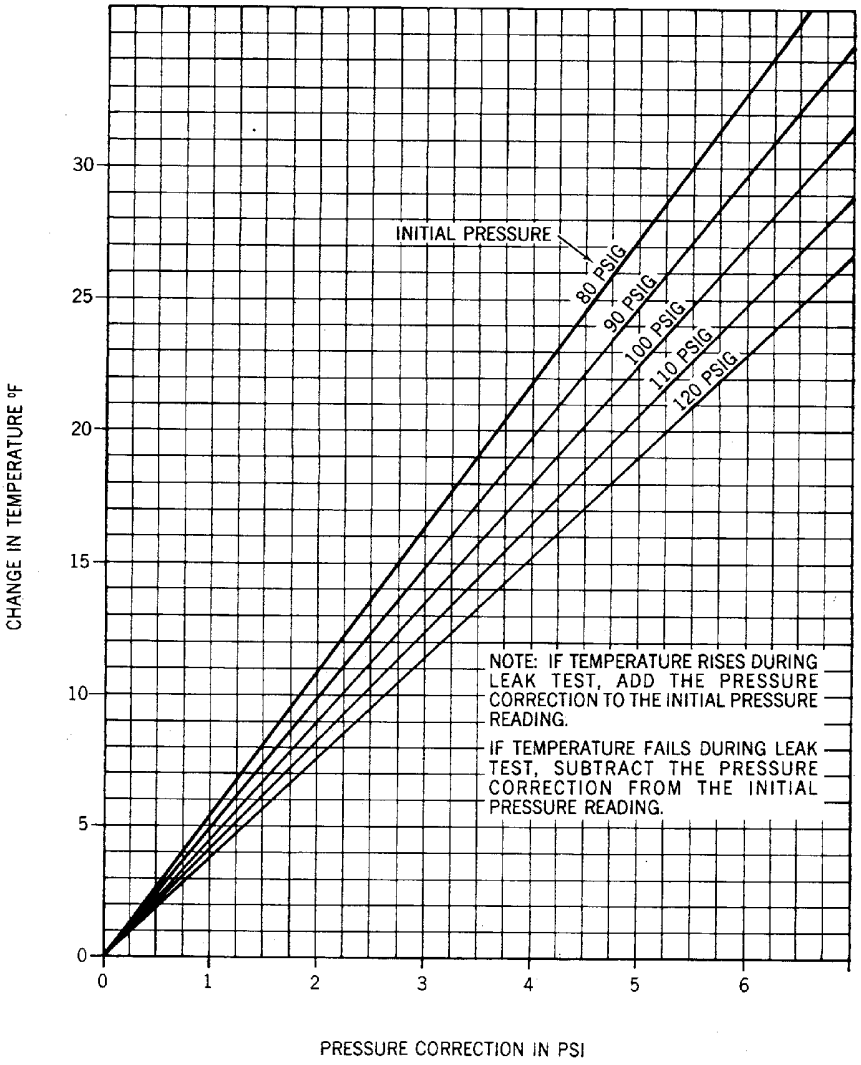
Temperature Versus Pressure Correction Curve -- Oxygen
Figure 202/35-10-00-990-825



BBB2-35-8

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Temperature Versus Pressure Correction Curve -- Nitrogen
Figure 203/35-10-00-990-826

CREW OXYGEN SYSTEM - INSPECTION/CHECK

1. General

A. This procedure contains MSG-3 task card data.

TASK 35-10-00-211-801

2. Detailed Inspection of the Crew Oxygen Masks and Microphone Assemblies

A. Detailed Inspection of the Crew Oxygen Masks and Microphone Assemblies

SUBTASK 35-10-00-211-001

(1) Do a detailed inspection of the crew oxygen masks and microphone assemblies.

(a) Check each mask for damage, security, and cleanliness.

(b) Check supply hose from regulator to mask for kinks, damage, and security.

(c) Check microphone assembly for damage, security, and condition of wire.

(2) Place masks in proper storage areas.

——— END OF TASK ———

TASK 35-10-00-211-802

3. Detailed Inspection of the Smoke Goggles, Smoke Hood, Full Face Oxygen Mask, and Smoke Mask

A. Detailed Inspection of the Smoke Goggles, Smoke Hood, Full Face Oxygen Mask, and Smoke Mask.

SUBTASK 35-10-00-211-002

(1) Do a detailed inspection of the crew smoke goggles, smoke hood, full face oxygen mask, and smoke mask.

——— END OF TASK ———

CREW OXYGEN CYLINDER AND SUPPLY PRESSURE REGULATOR - MAINTENANCE PRACTICES

1. General

A. The crew oxygen cylinder and supply pressure regulator are located in the flight compartment. The regulator should be removed from the cylinder before cylinder removal. Removal of cylinder and regulator should be performed with care.

2. Equipment and Materials

NOTE: Equivalent substitutes may be used instead of the following listed items:

NOTE: It is possible that some materials in the Equipment and Materials List cannot be used for some or all of their necessary applications. Before you use the materials, make sure the types, quantities, and applications of the materials necessary are legally permitted in your location. All persons must obey all applicable federal, state, local, and provincial laws and regulations when it is necessary to work with these materials.

Table 201

Name and Number	Manufacturer
Bubble fluid solution (MIL-L-25567) DPM 6045	
Low-pressure test gage	
Antiseize lubricant (Krytox 240 AC) DPM 5891	Du Pont E.I. DeNemours & Co. Inc.
Lockwire, copper (FED-J-W-1177/9) DPM5933 DPM5680 MS20995CU20 or MS20995CY20	

3. Removal/Installation Crew Oxygen Supply Pressure Regulator

A. Remove Regulator

WARNING: USE EXTREME CARE TO PREVENT OXYGEN SYSTEM, OR ANY OF ITS COMPONENTS, FROM BECOMING CONTAMINATED WITH GREASE OR OIL.

(1) Remove copper breakaway wire from shutoff valve and from regulator and close cylinder shutoff valve.

(2) Place any one regulator emergency toggle in TEST MASK position to bleed system pressure.

(3) Disconnect and cap supply hose from regulator. (Figure 201 or Figure 202)

CAUTION: CAP ALL OPEN CONNECTIONS TO PREVENT DIRT, OIL, OR GREASE FROM ENTERING SYSTEM.

(4) Remove regulator from shutoff valve. Make sure that no copper breakaway wire is trapped in or under B nut.

B. Install Regulator

(1) Remove all dust, accumulated antiseize lubricant, or any contaminant from cylinder fitting by wiping with lint-free dry cloth.

WARNING: KRYTOX 240AC IS AN AGENT THAT IS POISONOUS AND AN IRRITANT. MAKE SURE ALL PERSONS OBEY THE PRECAUTIONS WHEN KRYTOX 240AC IS USED.

- DO NOT USE IN AREAS WHERE THERE IS HIGH HEAT, SPARKS, OR FLAMES.
- CLOSE THE CONTAINER WHEN NOT USED.
- DO NOT GET KRYTOX 240AC IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES.
- DO NOT BREATHE THE GAS.
- DO NOT EAT KRYTOX 240AC.

WARNING: REFER TO THE APPLICABLE MANUFACTURER'S OR SUPPLIER'S MSDS FOR:

- MORE PRECAUTIONARY DATA
- APPROVED SAFETY EQUIPMENT
- EMERGENCY MEDICAL AID.

TALK WITH THE LOCAL SAFETY DEPARTMENT OR AUTHORITIES FOR THE PROCEDURES TO DISCARD THIS HAZARDOUS AGENT.

WARNING: USE EXTREME CARE TO PREVENT ANTISEIZE LUBRICANT FROM ENTERING REGULATOR FITTING PASSAGE OR CONTAMINATING FITTING SEAL SURFACE.

(2) Apply antiseize lubricant (Krytox 240) sparingly to male threads only of cylinder shutoff valve regulator attachment.

CAUTION: POSITION FIRST OFFICER'S SEAT FULLY AFT AND ENSURE THAT CLEARANCE EXISTS BETWEEN SEAT ARMREST AND SUPPLY PRESSURE REGULATOR. FAILURE TO COMPLY MAY CAUSE DAMAGE TO THE REGULATOR.

(3) Install regulator on shutoff valve. Make sure that there is no copper breakaway wire in or under B nut.

(4) Install new breakaway wire.

(5) Connect supply hose to regulator.

(6) Test regulator and cylinder. (Paragraph 5.A.)

4. Removal/Installation Crew Oxygen Cylinder

A. Remove Cylinder

(1) Remove copper breakaway wire from shutoff valve and from regulator and close shutoff valve.

(2) Remove regulator from shutoff valve, making sure that no copper breakaway wire is trapped in or under B nut.

NOTE: Regulator can be removed from shutoff valve without disconnecting supply hose.

CAUTION: CAP ALL OPEN CONNECTIONS TO PREVENT DIRT, OIL, OR GREASE FROM ENTERING SYSTEM.

(3) Disconnect safety discharge hose from shutoff valve.

(4) Open clamps and remove cylinder.

B. Install Cylinder

(1) Position cylinder and secure clamps.

(2) Connect safety discharge hose to shutoff valve.

CAUTION: POSITION FIRST OFFICER'S SEAT FULLY AFT AND ENSURE THAT CLEARANCE EXISTS BETWEEN SEAT ARMREST AND SUPPLY PRESSURE REGULATOR. FAILURE TO COMPLY COULD CAUSE DAMAGE TO REGULATOR.

(3) Connect regulator to shutoff valve.

(4) Install breakaway wire.

(5) Connect supply hose to regulator if removed.

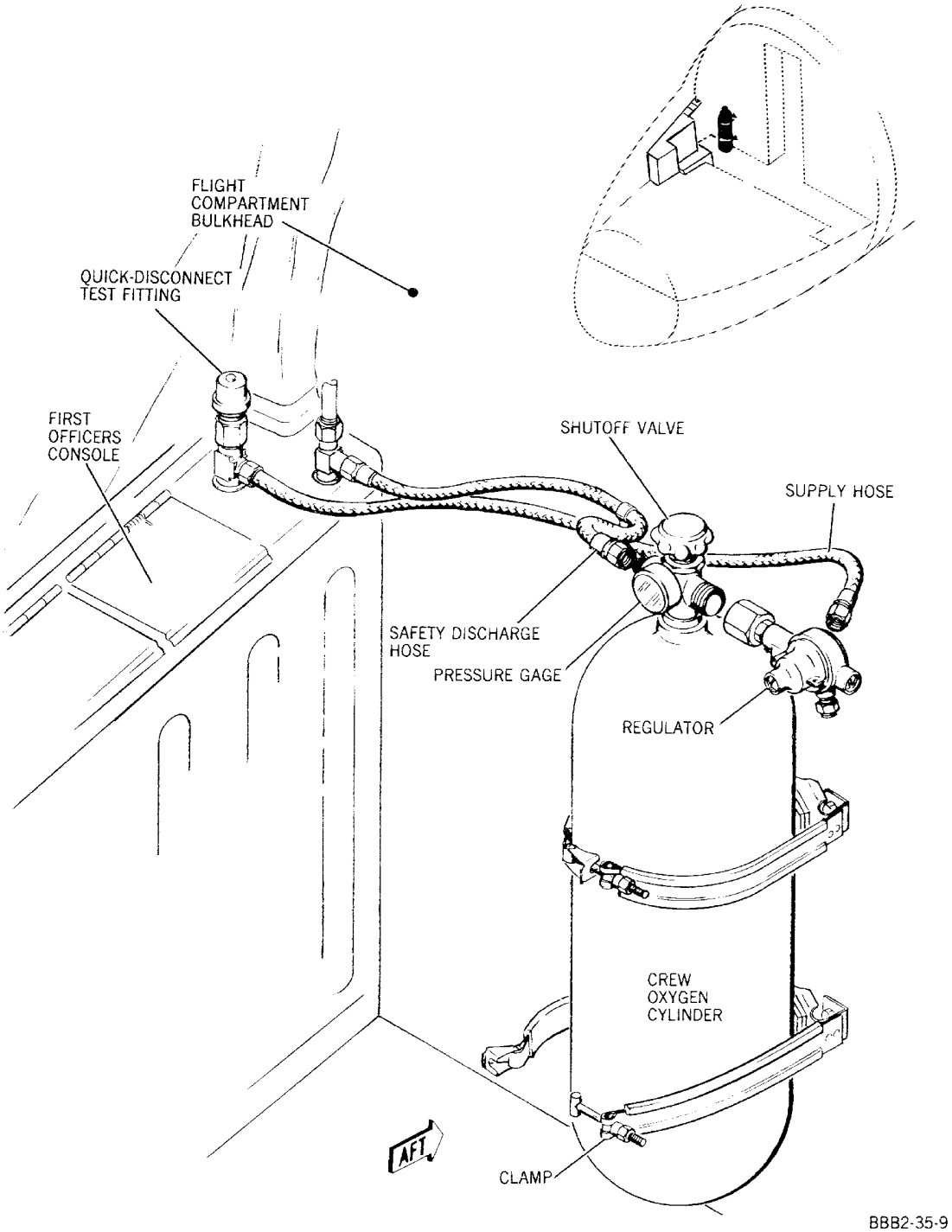
(6) Open crew oxygen cylinder shutoff valve to full open position and then close 1/4 turn.

(7) Using crew oxygen mask, conduct sniff/flow check as follows:

(a) Place diluter-demand regulator in 100% OXYGEN position, take several breaths from crew mask. Flow should be obtained freely and there should be no suspicious odors. Place regulator to NORMAL OXYGEN mode.

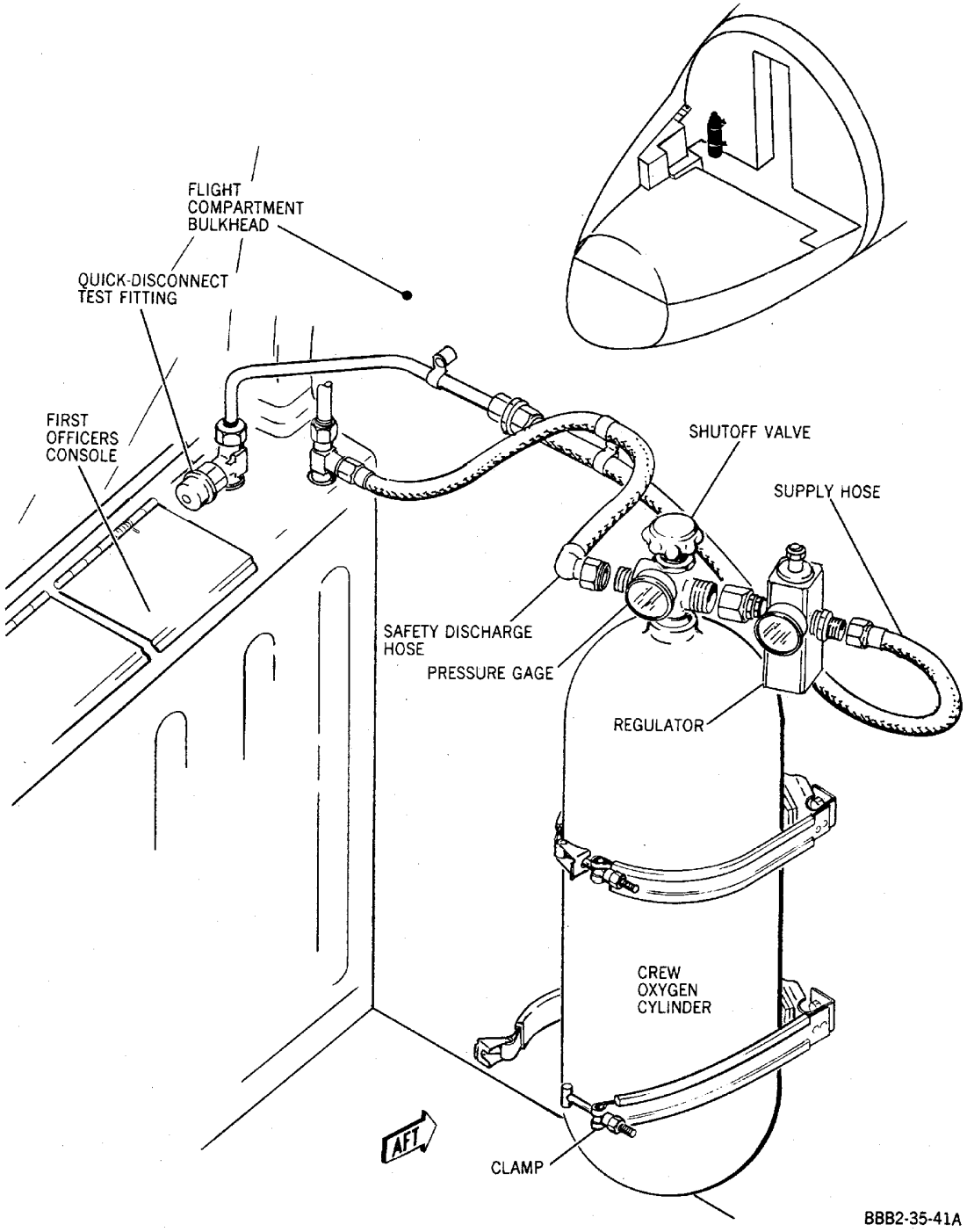
(b) Safety crew oxygen cylinder shutoff valve in open position using .020 in. copper breakaway wire.

(8) Return aircraft to normal configuration.



Crew Oxygen Cylinder and Supply Pressure Regulator -- Removal/Installation
Figure 201/35-10-01-990-811

EFFECTIVITY
WJE 401-405, 409, 410, 873-881, 883, 884, 886, 887, 892, 893



Crew Oxygen Cylinder and Supply Pressure Regulator -- Removal/Installation
Figure 202/35-10-01-990-812

WJE 401-411, 873-881, 883, 884, 886, 887, 892, 893

5. Adjustment/Test Cylinder and Supply Pressure Regulator

A. Test Cylinder and Regulator

(1) Connect test pressure gage to quick-disconnect test fitting.

(2) Check thoroughly for following:

(a) Condition of unit and connections.

(b) Security of mounting and installation.

(c) Cylinder pressure gage should indicate 1850 (+0, -20) psig (12765.0 (+0, -138.0) kPa) at 70°F (21.1°C) for fully charged cylinder.

(3) Place all diluter-demand regulator supply toggles in OFF position.

WARNING: VALVE MUST BE OPENED SLOWLY TO AVOID POSSIBILITY OF FIRE.

(4) Open cylinder shutoff valve. Test pressure gage should indicate 50 to 75 psig (345.0 to 517.5 kPa).

WARNING: LEAK TEST BUBBLE FLUID IS AN AGENT THAT IS AN IRRITANT. MAKE SURE ALL PERSONS OBEY THE PRECAUTIONS WHEN LEAK TEST BUBBLE FLUID IS USED.

- USE IN AN AREA OPEN TO THE AIR.
- CLOSE THE CONTAINER WHEN NOT USED.
- DO NOT GET LEAK TEST BUBBLE FLUID IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES.
- DO NOT BREATHE THE GAS.

WARNING: REFER TO THE APPLICABLE MANUFACTURER'S OR SUPPLIER'S MSDS FOR:

- MORE PRECAUTIONARY DATA
- APPROVED SAFETY EQUIPMENT
- EMERGENCY MEDICAL AID.

TALK WITH THE LOCAL SAFETY DEPARTMENT OR AUTHORITIES FOR THE PROCEDURES TO DISCARD THIS HAZARDOUS AGENT.

CAUTION: KEEP BUBBLE FLUID SOLUTION OUT OF VALVES AND FITTINGS. IMMEDIATELY CLEAN AND DRY ALL PARTS AFTER TEST. THIS WILL PREVENT DAMAGE TO EQUIPMENT.

(5) Use bubble fluid solution to check for leaks at following connections:

(a) Cylinder shutoff valve.

(b) Pressure regulator inlet and outlet.

(6) Place any one diluter-demand supply toggle in ON position and place regulator emergency toggle in TEST MASK position. Oxygen should flow through regulator and test pressure gage should maintain 50 to 75 psig (345.0 to 517.5 kPa).

NOTE: Perform Paragraph 5.A.(6) only when supply pressure regulator is installed.

(7) Close crew oxygen cylinder shutoff valve.

(8) Place any one diluter-demand regulator emergency toggle in TEST MASK position to bleed system pressure.

(9) Remove test pressure gage and install quick-disconnect test fitting dust cover.

(10) Safety with (FED-J-W-1177/9 .014 in. copper lockwire) all crew diluter-demand regulator supply toggles in ON position, except observer's regulator.

(11) Open crew oxygen cylinder shutoff valve to full open position and then close 1/4 turn.

(12) Safety crew oxygen cylinder shutoff valve in open position using .020 in. copper breakaway wire.

(13) Visually check the line pressure indicator, located on the overhead panel, and make sure the indicator needle is in the green range.

CREW OXYGEN CYLINDER AND SUPPLY PRESSURE REGULATOR - MAINTENANCE PRACTICES

1. General

A. The crew oxygen cylinder and supply pressure regulator are located in the flight compartment. The regulator should be removed from the cylinder before cylinder removal. Removal of cylinder and regulator should be performed with care.

2. Equipment and Materials

NOTE: Equivalent substitutes may be used instead of the following listed items:

NOTE: It is possible that some materials in the Equipment and Materials List cannot be used for some or all of their necessary applications. Before you use the materials, make sure the types, quantities, and applications of the materials necessary are legally permitted in your location. All persons must obey all applicable federal, state, local, and provincial laws and regulations when it is necessary to work with these materials.

Table 201

Name and Number	Manufacturer
Bubble fluid solution (MIL-L-25567) DPM 6045	
Low-pressure test gage	
Antiseize lubricant (Krytox 240 AC) DPM 5891	Du Pont E.I. DeNemours & Co. Inc.

3. Removal/Installation Cylinder and Supply Pressure Regulator

A. Remove Regulator

WARNING: USE EXTREME CARE TO PREVENT OXYGEN SYSTEM OR ANY OF ITS COMPONENTS FROM BECOMING CONTAMINATED WITH GREASE OR OIL.

(1) Close cylinder shutoff valve.

(2) Disconnect and cap supply hose from regulator. (Figure 201)

CAUTION: CAP ALL OPEN CONNECTIONS TO PREVENT DIRT, OIL, OR GREASE FROM ENTERING SYSTEM.

(3) Remove regulator from shutoff valve.

B. Install Regulator

(1) Remove all dust, accumulated antiseize lubricant, or any contaminant from cylinder fitting by wiping with lint-free dry cloth.

WARNING: KRYTOX 240AC IS AN AGENT THAT IS POISONOUS AND AN IRRITANT. MAKE SURE ALL PERSONS OBEY THE PRECAUTIONS WHEN KRYTOX 240AC IS USED.

- DO NOT USE IN AREAS WHERE THERE IS HIGH HEAT, SPARKS, OR FLAMES.
- CLOSE THE CONTAINER WHEN NOT USED.
- DO NOT GET KRYTOX 240AC IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES.
- DO NOT BREATHE THE GAS.
- DO NOT EAT KRYTOX 240AC.

(WARNING PRECEDES)

WARNING: REFER TO THE APPLICABLE MANUFACTURER'S OR SUPPLIER'S MSDS FOR:

- MORE PRECAUTIONARY DATA
- APPROVED SAFETY EQUIPMENT
- EMERGENCY MEDICAL AID.

TALK WITH THE LOCAL SAFETY DEPARTMENT OR AUTHORITIES FOR THE PROCEDURES TO DISCARD THIS HAZARDOUS AGENT.

WARNING: USE EXTREME CARE TO PREVENT ANTISEIZE LUBRICANT FROM ENTERING REGULATOR FITTING PASSAGE OR CONTAMINATING FITTING SEAL SURFACE.

(2) Apply antiseize lubricant (Krytox 240) sparingly to male threads only of cylinder shutoff valve regulator attachment.

CAUTION: POSITION FIRST OFFICER'S SEAT FULLY AFT AND ENSURE THAT CLEARANCE EXISTS BETWEEN SEAT ARMREST AND SUPPLY PRESSURE REGULATOR. FAILURE TO COMPLY COULD CAUSE DAMAGE TO REGULATOR.

(3) Install regulator on shutoff valve.

(4) Connect supply hose to regulator.

(5) Test regulator and cylinder. (Paragraph 4.A.)

C. Remove Cylinder

(1) Close cylinder shutoff valve.

(2) Remove regulator from shutoff valve.

NOTE: Regulator can be removed from shutoff valve without disconnecting supply hose.

CAUTION: CAP ALL OPEN CONNECTIONS TO PREVENT DIRT, OIL, OR GREASE FROM ENTERING SYSTEM.

(3) Disconnect safety discharge hose from shutoff valve.

(4) Open clamps and remove cylinder.

D. Install Cylinder

(1) Position cylinder and secure clamps.

(2) Connect safety discharge hose to shutoff valve.

CAUTION: POSITION FIRST OFFICER'S SEAT FULLY AFT AND ENSURE THAT CLEARANCE EXISTS BETWEEN SEAT ARMREST AND SUPPLY PRESSURE REGULATOR. FAILURE TO COMPLY COULD CAUSE DAMAGE TO REGULATOR.

(3) Connect regulator to shutoff valve.

(4) Connect supply hose to regulator if removed.

(5) Open crew oxygen cylinder shutoff valve.

(a) Safety crew oxygen cylinder shutoff valve in open position using .020 in. copper breakaway wire.

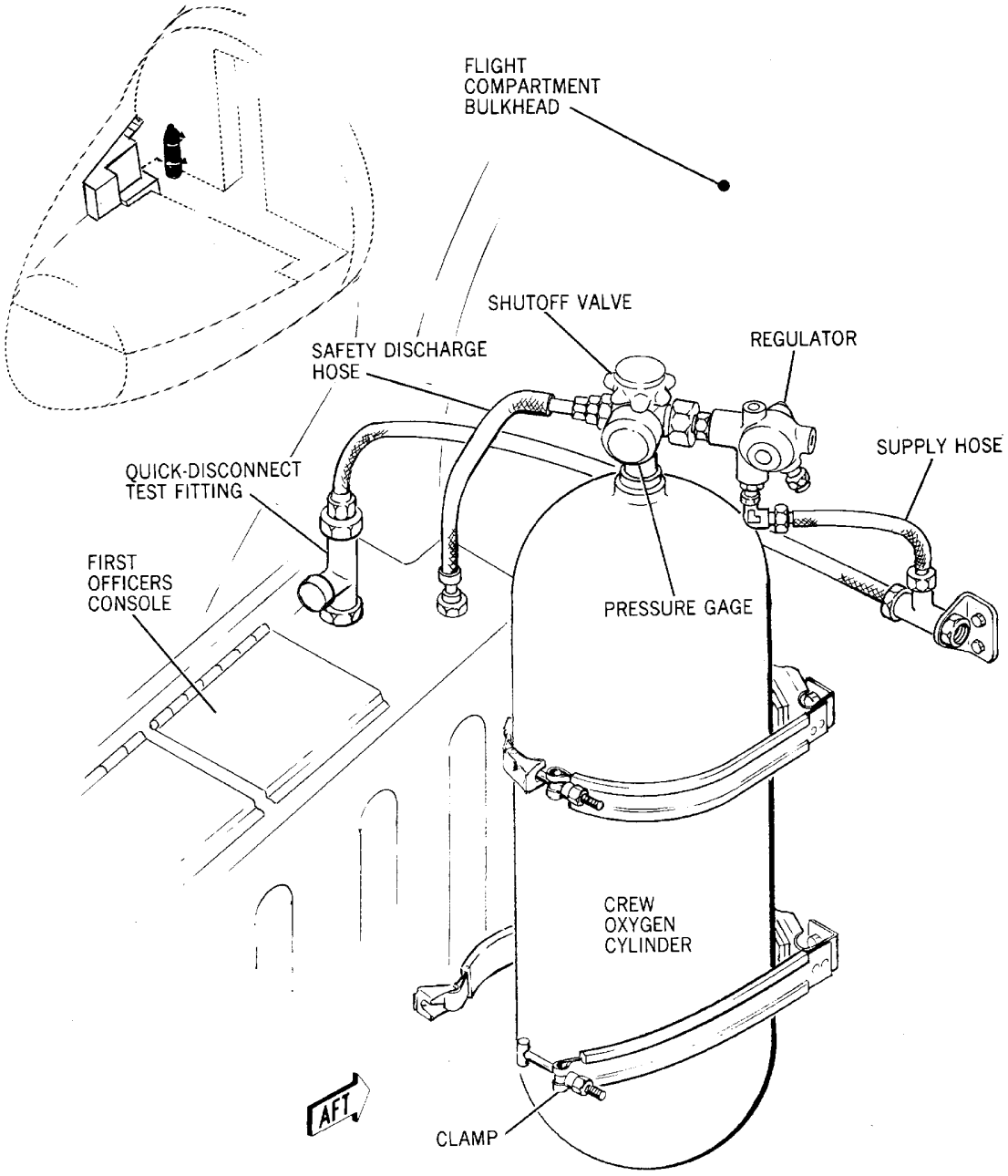
(6) Using crew oxygen mask, conduct sniff/flow check as follows:

(a) Remove mask from stowage box and place regulator slide control in N (up) position.

(b) Take several breaths from crew mask. Flow should be obtained freely and there should be no suspicious odors.

(c) Stow oxygen mask in stowage box. (PAGEBLOCK 35-10-03/201 Config 2)

(7) Test regulator and cylinder. (Paragraph 4.A.



Crew Oxygen Cylinder and Supply Pressure Regulator -- Removal/Installation
Figure 201/35-10-01-990-804

4. Adjustment/Test Cylinder and Supply Pressure Regulator

A. Test Cylinder and Regulator

(1) Connect test pressure gage to quick-disconnect test fitting.

(2) Check thoroughly for following:

(a) Condition of unit and connections.

(b) Security of mounting and installation.

(c) Cylinder pressure gage should indicate 1850 (+0, -20) psig (12765.0 (+0, -138.0) kPa) at 70°F (21.1°C) for fully charged cylinder.

WARNING: VALVE MUST BE OPENED SLOWLY TO AVOID POSSIBILITY OF FIRE.

(3) Open cylinder shutoff valve. Test pressure gage should indicate 70 to 94 psig (483.0 to 648.6 kPa).

(4) Use bubble fluid solution to check for leaks at following connections:

(a) Cylinder shutoff valve.

(b) Pressure regulator inlet and outlet.

(5) Place any one mask-mounted diluter-demand regulator slide control to RESET TEST and emergency control to PRESS TO TEST position. Oxygen should flow through regulator and test pressure gage should maintain 70 to 94 psig (483.0 to 648.6 kPa).

NOTE: Perform Paragraph 4.A.(5) only when supply pressure regulator is installed.

(6) Close crew oxygen cylinder shut off valve.

(7) Remove test pressure gage and install quick-disconnect test fitting dust cover.

(8) Open crew oxygen cylinder shutoff valve.

(a) Safety crew oxygen cylinder shutoff valve in open position using .020 in. copper breakaway wire.

(9) Visually check the line pressure indicator, located on the overhead panel, and make sure the indicator needle is in the green range.

CREW OXYGEN CYLINDER AND SUPPLY PRESSURE REGULATOR - MAINTENANCE PRACTICES

1. General

A. The crew oxygen cylinder and supply pressure regulator are located in the flight compartment. The regulator should be removed from the cylinder before cylinder removal. Removal of cylinder and regulator should be performed with care.

2. Equipment and Materials

NOTE: Equivalent substitutes may be used instead of the following listed items:

NOTE: It is possible that some materials in the Equipment and Materials List cannot be used for some or all of their necessary applications. Before you use the materials, make sure the types, quantities, and applications of the materials necessary are legally permitted in your location. All persons must obey all applicable federal, state, local, and provincial laws and regulations when it is necessary to work with these materials.

Table 201

Name and Number	Manufacturer
Bubble fluid solution (MIL-L-25567) DPM 6045	
Low-pressure test gage	
Antiseize lubricant (Krytox 240 AC) DPM 5891	Du Pont E.I. DeNemours & Co. Inc.

3. Removal/Installation Crew Oxygen Cylinder and Supply Pressure Regulator

A. Remove Regulator

WARNING: USE EXTREME CARE TO PREVENT OXYGEN SYSTEM OR ANY OF ITS COMPONENTS FROM BECOMING CONTAMINATED WITH GREASE OR OIL.

(1) Close cylinder shutoff valve.

(2) Disconnect and cap supply hose from regulator. (Figure 201)

CAUTION: CAP ALL OPEN CONNECTIONS TO PREVENT DIRT, OIL, OR GREASE FROM ENTERING SYSTEM.

(3) Remove regulator from shutoff valve.

B. Install Supply Regulator

(1) Remove all dust, accumulated antiseize lubricant, or any contaminant from cylinder fitting by wiping with lint-free dry cloth.

WARNING: KRYTOX 240AC IS AN AGENT THAT IS POISONOUS AND AN IRRITANT. MAKE SURE ALL PERSONS OBEY THE PRECAUTIONS WHEN KRYTOX 240AC IS USED.

- DO NOT USE IN AREAS WHERE THERE IS HIGH HEAT, SPARKS, OR FLAMES.
- CLOSE THE CONTAINER WHEN NOT USED.
- DO NOT GET KRYTOX 240AC IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES.
- DO NOT BREATHE THE GAS.
- DO NOT EAT KRYTOX 240AC.

(WARNING PRECEDES)

WARNING: REFER TO THE APPLICABLE MANUFACTURER'S OR SUPPLIER'S MSDS FOR:

- MORE PRECAUTIONARY DATA
- APPROVED SAFETY EQUIPMENT
- EMERGENCY MEDICAL AID.

TALK WITH THE LOCAL SAFETY DEPARTMENT OR AUTHORITIES FOR THE PROCEDURES TO DISCARD THIS HAZARDOUS AGENT.

WARNING: USE EXTREME CARE TO PREVENT ANTISEIZE LUBRICANT FROM ENTERING REGULATOR FITTING PASSAGE OR CONTAMINATING FITTING SEAL SURFACE.

(2) Apply antiseize lubricant (Krytox 240) sparingly to male threads only of cylinder shutoff valve regulator attachment.

CAUTION: POSITION FIRST OFFICER'S SEAT FULLY AFT AND ENSURE THAT CLEARANCE EXISTS BETWEEN SEAT ARMREST AND SUPPLY PRESSURE REGULATOR. FAILURE TO COMPLY COULD CAUSE DAMAGE TO REGULATOR.

(3) Install regulator on shutoff valve.

(4) Connect supply hose to regulator.

(5) Test regulator and cylinder. (Paragraph 4.A.)

C. Remove Cylinder

(1) Close cylinder shutoff valve.

(2) Remove regulator from shutoff valve.

NOTE: Regulator can be removed from shutoff valve without disconnecting supply hose.

CAUTION: CAP ALL OPEN CONNECTIONS TO PREVENT DIRT, OIL, OR GREASE FROM ENTERING SYSTEM.

(3) Disconnect safety discharge hose from shutoff valve.

(4) Open clamps and remove cylinder.

D. Install Cylinder

(1) Position cylinder and secure clamps.

(2) Connect safety discharge hose to shutoff valve.

CAUTION: POSITION FIRST OFFICER'S SEAT FULLY AFT AND ENSURE THAT CLEARANCE EXISTS BETWEEN SEAT ARMREST AND SUPPLY PRESSURE REGULATOR. FAILURE TO COMPLY COULD CAUSE DAMAGE TO REGULATOR.

(3) Connect regulator to shutoff valve.

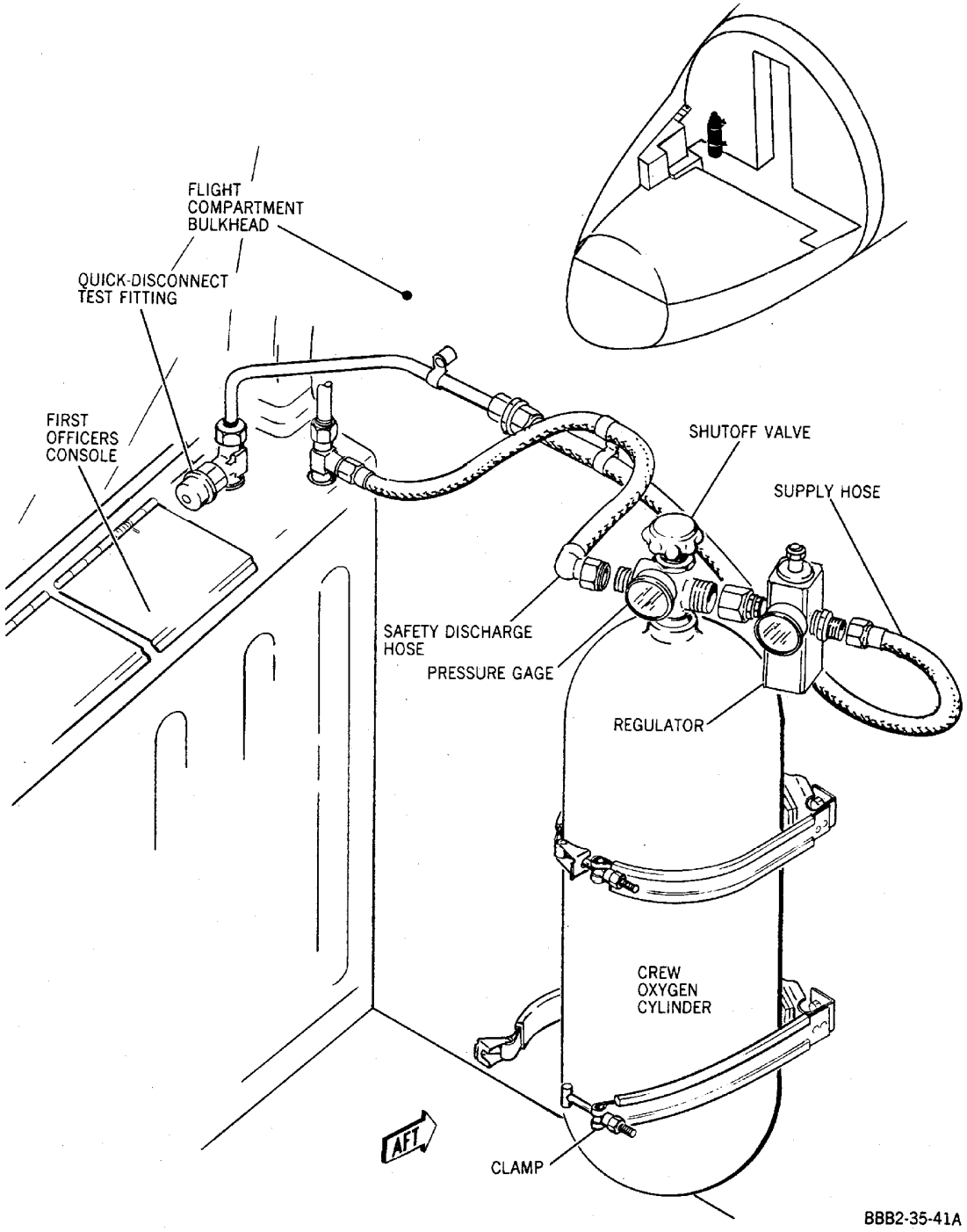
(4) Connect supply hose to regulator if removed.

(5) Open crew oxygen cylinder shutoff valve to full open position and then close 1/4 turn.

(6) Using crew oxygen mask, conduct sniff/flow check as follows:

(a) Place diluter - demand regulator in 100% OXYGEN position, take several breaths from crew mask. Flow should be obtained freely and there should be no suspicious odors. Place regulator to NORMAL OXYGEN mode.

(7) Test regulator and cylinder. (Paragraph 4.A.)



Crew Oxygen Cylinder and Supply Pressure Regulator -- Removal/Installation
Figure 201/35-10-01-990-805

4. Adjustment/Test Cylinder and Supply Pressure Regulator

A. Test Cylinder and Regulator

(1) Connect test pressure gage to quick-disconnect test fitting.

(2) Check thoroughly for following:

(a) Condition of unit and connections.

(b) Security of mounting and installation.

(c) Cylinder pressure gage should indicate 1850 (+0, -20) psig (12765.0 (+0, -138.0) kPa) at 70°F (21.1°C) for fully charged cylinder.

WARNING: VALVE MUST BE OPENED SLOWLY TO AVOID POSSIBILITY OF FIRE.

(3) Open cylinder shutoff valve. Test pressure gage should indicate 70 to 94 psig (483.0 to 648.6 kPa).

WARNING: LEAK TEST BUBBLE FLUID IS AN AGENT THAT IS AN IRRITANT. MAKE SURE ALL PERSONS OBEY THE PRECAUTIONS WHEN LEAK TEST BUBBLE FLUID IS USED.

- USE IN AN AREA OPEN TO THE AIR.
- CLOSE THE CONTAINER WHEN NOT USED.
- DO NOT GET LEAK TEST BUBBLE FLUID IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES.
- DO NOT BREATHE THE GAS.

WARNING: REFER TO THE APPLICABLE MANUFACTURER'S OR SUPPLIER'S MSDS FOR:

- MORE PRECAUTIONARY DATA
- APPROVED SAFETY EQUIPMENT
- EMERGENCY MEDICAL AID.

TALK WITH THE LOCAL SAFETY DEPARTMENT OR AUTHORITIES FOR THE PROCEDURES TO DISCARD THIS HAZARDOUS AGENT.

CAUTION: KEEP BUBBLE FLUID OUT OF VALVES AND FITTINGS. IMMEDIATELY CLEAN AND DRY ALL PARTS AFTER TEST. THIS WILL PREVENT DAMAGE TO EQUIPMENT.

(4) Use bubble fluid solution to check for leaks at following connections:

(a) Cylinder shutoff valve.

(b) Pressure regulator inlet and outlet.

(5) With any one mask-mounted diluter-demand regulator knob in NORM position, oxygen should flow through regulator and test pressure gage should maintain 70 to 94 psig (483.0 to 648.6 kPa).

NOTE:

Perform Paragraph 4.A.(5) only when supply pressure regulator is installed.

(6) Close cylinder shutoff valve.

(7) Remove test pressure gauge and install quick-disconnect test fitting dust cover.

(8) Open crew oxygen cylinder shutoff valve to full open position and then close 1/4 turn.

(9) Visually check the line pressure indicator, located on the overhead panel, and make sure the indicator needle is in the green range.

CREW OXYGEN CYLINDER AND SUPPLY PRESSURE REGULATOR - REMOVAL/INSTALLATION

1. General

A. This procedure contains MSG-3 task card data.

TASK 35-10-01-901-801

2. Discard the Crew Oxygen Bottle

A. Prepare for the Discard of the Crew Oxygen Bottle

SUBTASK 35-10-01-010-001

(1) Gain access to the crew oxygen bottle.

B. Discard the Crew Oxygen Bottle

SUBTASK 35-10-01-020-001

(1) Remove the crew oxygen bottle.

SUBTASK 35-10-01-901-001

(2) Discard the crew oxygen bottle.

SUBTASK 35-10-01-420-001

(3) Install the crew oxygen bottle.

C. Job Close-up

SUBTASK 35-10-01-942-001

(1) Remove all the tools and equipment from the work area. Make sure the area is clean.

END OF TASK

CREW OXYGEN CYLINDER AND SUPPLY PRESSURE REGULATOR- ADJUSTMENT/TEST

1. General

A. This procedure contains MSG-3 task card data.

TASK 35-10-01-720-801

2. Functional Check of the Supply Pressure Regulators

NOTE: This procedure is a scheduled maintenance task.

A. References

Reference	Title
35-10-01 P/B 201 Config 1	CREW OXYGEN CYLINDER AND SUPPLY PRESSURE REGULATOR - MAINTENANCE PRACTICES
35-10-01 P/B 201 Config 2	CREW OXYGEN CYLINDER AND SUPPLY PRESSURE REGULATOR - MAINTENANCE PRACTICES
35-10-01 P/B 201 Config 3	CREW OXYGEN CYLINDER AND SUPPLY PRESSURE REGULATOR - MAINTENANCE PRACTICES

B. Functional Check of the Supply Pressure Regulators

SUBTASK 35-10-01-720-001

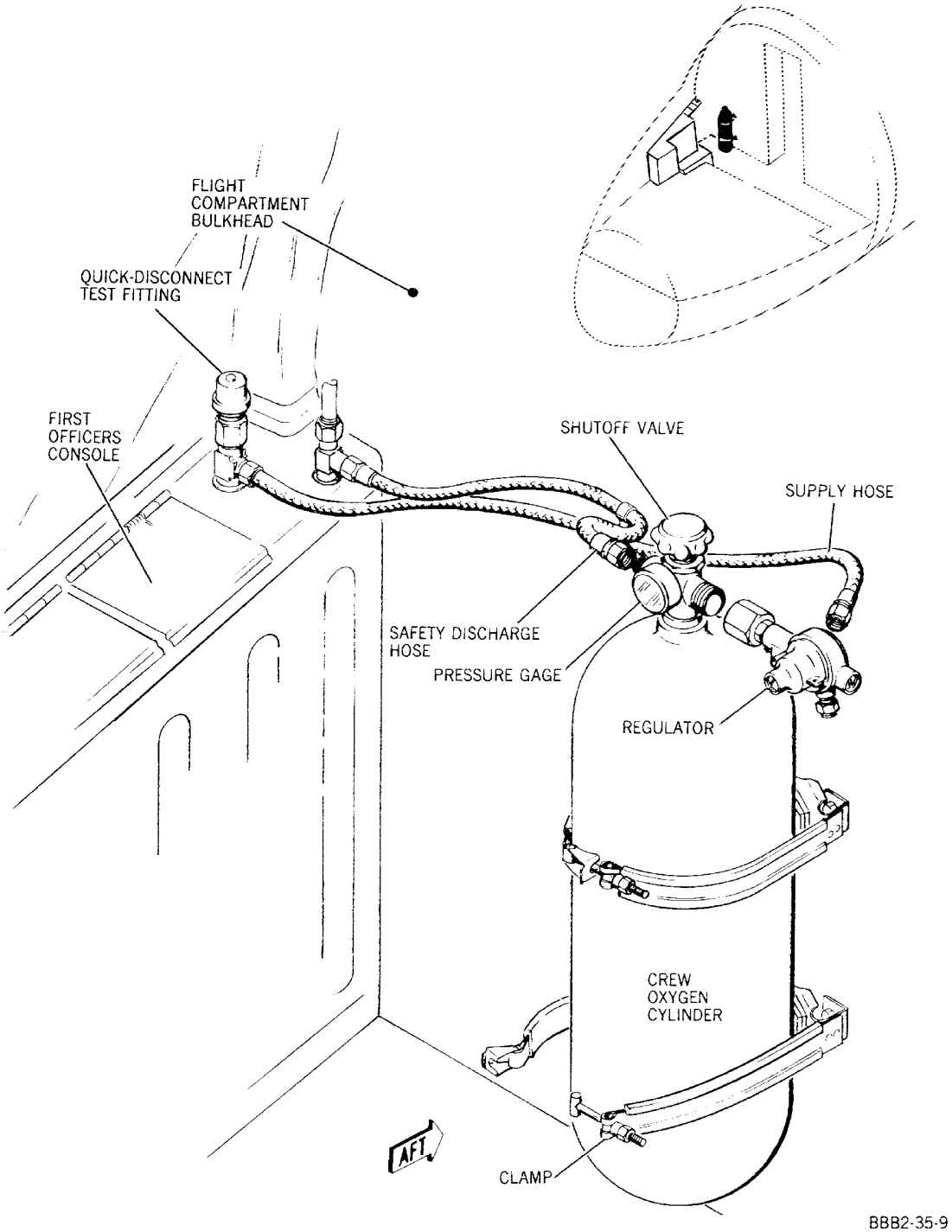
(1) Do a functional check of the supply pressure regulator.

(a) Remove the supply pressure regulator. (Ref CREW OXYGEN CYLINDER AND SUPPLY PRESSURE REGULATOR - MAINTENANCE PRACTICES, PAGEBLOCK 35-10-01/201 Config 1 or CREW OXYGEN CYLINDER AND SUPPLY PRESSURE REGULATOR - MAINTENANCE PRACTICES, PAGEBLOCK 35-10-01/201 Config 2 or CREW OXYGEN CYLINDER AND SUPPLY PRESSURE REGULATOR - MAINTENANCE PRACTICES, PAGEBLOCK 35-10-01/201 Config 3

(b) Send regulator to the shop for a functional check.

(c) Install a servicable supply pressure regulator. (Ref CREW OXYGEN CYLINDER AND SUPPLY PRESSURE REGULATOR - MAINTENANCE PRACTICES, PAGEBLOCK 35-10-01/201 Config 1 or CREW OXYGEN CYLINDER AND SUPPLY PRESSURE REGULATOR - MAINTENANCE PRACTICES, PAGEBLOCK 35-10-01/201 Config 2 or CREW OXYGEN CYLINDER AND SUPPLY PRESSURE REGULATOR - MAINTENANCE PRACTICES, PAGEBLOCK 35-10-01/201 Config 3

——— END OF TASK ———



Crew Oxygen Cylinder and Supply Pressure Regulator
Figure 501/35-10-01-990-806

TASK 35-10-01-720-802

3. Functional Check of the Demand Regulators

A. References

Reference	Title
35-10-02 P/B 201 Config 1	CREW OXYGEN DILUTER-DEMAND REGULATOR - MAINTENANCE PRACTICES
35-10-02 P/B 201 Config 3	CREW OXYGEN DILUTER-DEMAND REGULATOR - MAINTENANCE PRACTICES
35-10-03 P/B 201 Config 2	CREW OXYGEN MASK - MAINTENANCE PRACTICES

WJE 401-412, 414, 873-881, 883, 884, 886, 887, 892, 893

B. Functional Check of the Demand Regulators

SUBTASK 35-10-01-020-002

(1) Remove the demand regulator. CREW OXYGEN DILUTER-DEMAND REGULATOR - MAINTENANCE PRACTICES, PAGEBLOCK 35-10-02/201 Config 1 or CREW OXYGEN DILUTER-DEMAND REGULATOR - MAINTENANCE PRACTICES, PAGEBLOCK 35-10-02/201 Config 3

SUBTASK 35-10-01-720-005

(2) Route the demand regulator to the shop for functional check.

SUBTASK 35-10-01-420-002

(3) Install a servicable demand regulator. CREW OXYGEN DILUTER-DEMAND REGULATOR - MAINTENANCE PRACTICES, PAGEBLOCK 35-10-02/201 Config 1 or CREW OXYGEN DILUTER-DEMAND REGULATOR - MAINTENANCE PRACTICES, PAGEBLOCK 35-10-02/201 Config 3

WJE 415-427, 429, 861-866, 868, 869, 871, 872, 891

C. Functional Check of the Demand Regulators

SUBTASK 35-10-01-020-003

(1) Remove the oxygen mask. (CREW OXYGEN MASK - MAINTENANCE PRACTICES, PAGEBLOCK 35-10-03/201 Config 2)

SUBTASK 35-10-01-720-006

(2) Route the oxygen mask to the shop for functional check.

SUBTASK 35-10-01-420-003

(3) Install a servicable oxygen mask.)CREW OXYGEN MASK - MAINTENANCE PRACTICES, PAGEBLOCK 35-10-03/201 Config 2)

——— END OF TASK ———

CREW OXYGEN CYLINDER AND SUPPLY PRESSURE REGULATOR - INSPECTION/CHECK

1. General

A. This procedure contains MSG-3 task card data.

TASK 35-10-01-212-801

2. Visual Check of the Crew Oxygen Bottle Pressure Gauge for Proper Pressure

A. Visual Check of the Crew Oxygen Bottle Pressure Gauge for Proper Pressure

SUBTASK 35-10-01-212-001

(1) Do a visual check of the crew oxygen bottle pressure.

(a) Pressure gauge indication should be 1850 +0 / -20 psi (12,755 +0 / -138 kPa) at 70°F (21.1°C) for a full bottle.

——— END OF TASK ———

CREW OXYGEN DILUTER-DEMAND REGULATOR - MAINTENANCE PRACTICES

1. General

A. The captain's and first officer's consoles each contain a diluter-demand regulator. Access to the captain's and first officer's regulator connections is by removal of the writing table cover and the respective console side panel. The observer's diluter-demand regulator is located in the aft overhead lighting switch panel. The observer's regulator must be removed from the panel to gain access to the regulator connections.

2. Equipment and Materials

NOTE: Equivalent substitutes may be used instead of the following listed items:

NOTE: It is possible that some materials in the Equipment and Materials List cannot be used for some or all of their necessary applications. Before you use the materials, make sure the types, quantities, and applications of the materials necessary are legally permitted in your location. All persons must obey all applicable federal, state, local, and provincial laws and regulations when it is necessary to work with these materials.

Table 201

Name and Number	Manufacturer
Bubble fluid solution (MIL-L-25567) DPM 6045	
Lockwire, copper (FED-J-W-1177/9) DPM 5933	

3. Removal/Installation Crew Oxygen Diluter-Demand Regulator

A. Remove Captain's or First Officer's Regulator

WARNING: USE EXTREME CARE TO PREVENT OXYGEN SYSTEM, OR ANY OF ITS COMPONENTS, FROM BECOMING CONTAMINATED WITH GREASE OR OIL.

(1) Close crew oxygen cylinder shutoff valve.

WARNING: TAG AND USE SAFETY CLIPS TO SAFETY THE CIRCUIT BREAKERS. IF THE CIRCUIT BREAKERS ARE NOT OPENED, TAGGED, AND SAFETIED, INJURY TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(2) Open these circuit breakers and install safety tags:

UPPER EPC, LIGHTS - LEFT AC BUS

Row	Col	Number	Name
K	15	B1-300	INTEGRAL LIGHTS CAPTAIN'S INST PANEL

UPPER EPC, LIGHTS - RIGHT AC BUS

Row	Col	Number	Name
L	17	B1-303	INTEGRAL LIGHTS F/O INST PANEL

(3) Remove writing table and side panel from applicable console.

CAUTION: CAP ALL OPEN CONNECTIONS TO PREVENT DIRT, OIL, OR GREASE FROM ENTERING SYSTEM.

(4) Disconnect and cap inlet pipe and electrical connector from regulator.

(5) Remove regulator, disconnect and cap outlet hose as regulator is lifted from console.

B. Install Captain's or First Officer's Regulator

WARNING: TAG AND USE SAFETY CLIPS TO SAFETY THE CIRCUIT BREAKERS. IF THE CIRCUIT BREAKERS ARE NOT OPENED, TAGGED, AND SAFETIED, INJURY TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(1) Make sure that these circuit breakers are open and have safety tags:

UPPER EPC, LIGHTS - LEFT AC BUS

Row	Col	Number	Name
K	15	B1-300	INTEGRAL LIGHTS CAPTAIN'S INST PANEL

UPPER EPC, LIGHTS - RIGHT AC BUS

Row	Col	Number	Name
L	17	B1-303	INTEGRAL LIGHTS F/O INST PANEL

(2) Connect outlet hose to regulator and install regulator in console.

CAUTION: EXERCISE CARE TO PREVENT CONTAMINATION OF OXYGEN SYSTEM AND COMPONENTS.

(3) Connect inlet pipe and electrical connector.

(4) Check regulator. (Paragraph 4.)

(5) Remove the safety tags and close these circuit breakers:

UPPER EPC, LIGHTS - LEFT AC BUS

Row	Col	Number	Name
K	15	B1-300	INTEGRAL LIGHTS CAPTAIN'S INST PANEL

UPPER EPC, LIGHTS - RIGHT AC BUS

Row	Col	Number	Name
L	17	B1-303	INTEGRAL LIGHTS F/O INST PANEL

(6) Test regulator. (Paragraph 5.)

(7) Install writing table and side panel on applicable console.

C. Remove Observer's Regulator

(1) Close crew oxygen cylinder shutoff valve.

WARNING: TAG AND USE SAFETY CLIPS TO SAFETY THE CIRCUIT BREAKERS. IF THE CIRCUIT BREAKERS ARE NOT OPENED, TAGGED, AND SAFETIED, INJURY TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(2) Open this circuit breaker and install safety tag:

UPPER EPC, LIGHTS - LEFT AC BUS

Row	Col	Number	Name
K	17	B1-315	INTEGRAL LIGHTS OVERHEAD PANEL AFT

(3) Remove regulator.

CAUTION: CAP ALL OPEN CONNECTIONS TO PREVENT DIRT, OIL, OR GREASE FROM ENTERING SYSTEM.

(4) Disconnect and cap inlet hose, outlet hose, and electrical connector from regulator.

D. Install Observer's Regulator

WARNING: TAG AND USE SAFETY CLIPS TO SAFETY THE CIRCUIT BREAKERS. IF THE CIRCUIT BREAKERS ARE NOT OPENED, TAGGED, AND SAFETIED, INJURY TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(1) Make sure that this circuit breaker is open and has safety tag:

UPPER EPC, LIGHTS - LEFT AC BUS

Row	Col	Number	Name
K	17	B1-315	INTEGRAL LIGHTS OVERHEAD PANEL AFT

CAUTION: EXERCISE CARE TO PREVENT CONTAMINATION OF OXYGEN SYSTEM AND COMPONENTS.

(2) Connect inlet hose, outlet hose, and electrical connector to regulator.

(3) Perform regulator leak check. (Paragraph 4.)

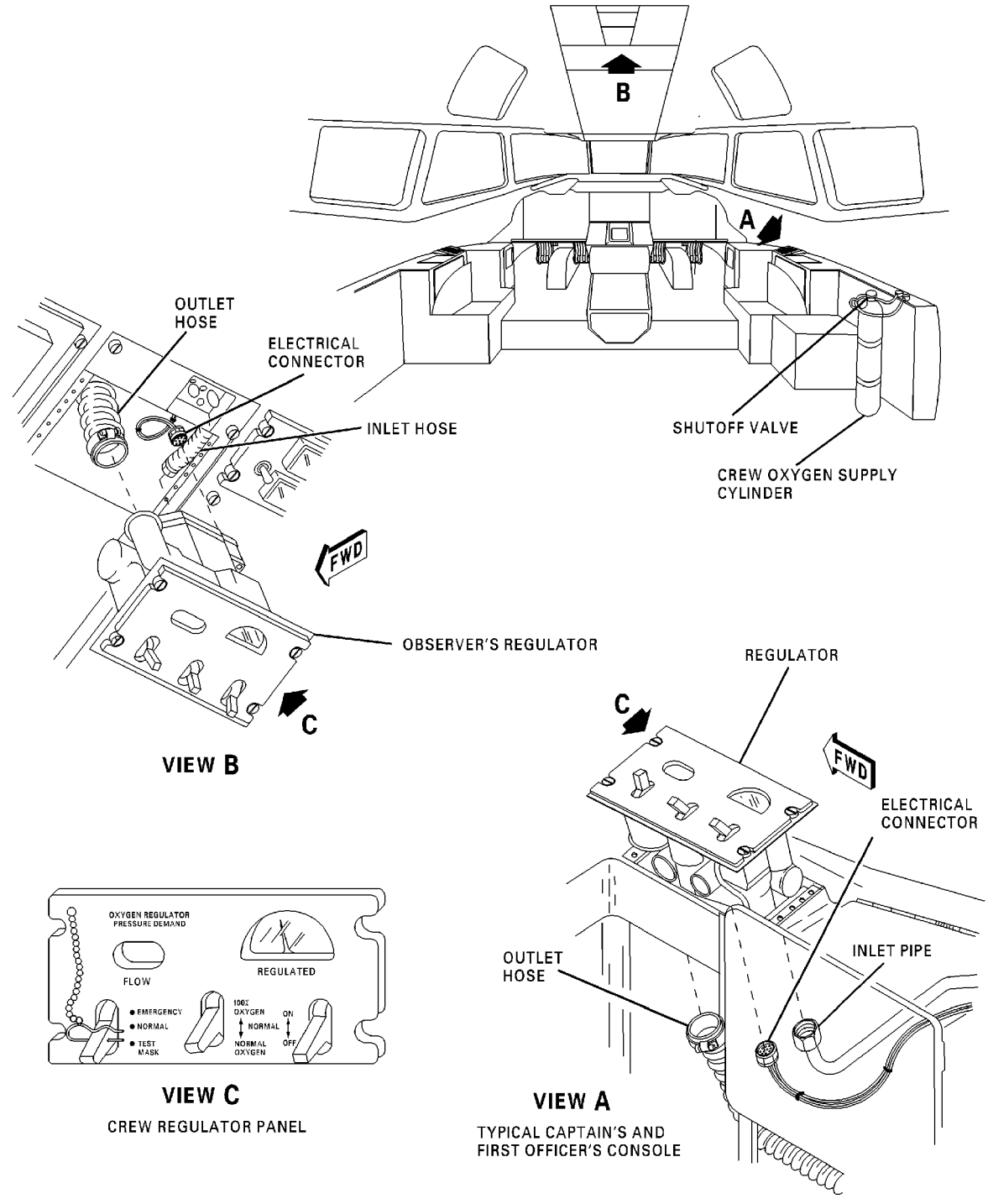
(4) Install regulator in aft overhead panel.

(5) Remove the safety tag and close this circuit breaker:

UPPER EPC, LIGHTS - LEFT AC BUS

Row	Col	Number	Name
K	17	B1-315	INTEGRAL LIGHTS OVERHEAD PANEL AFT

(6) Test regulator. (Paragraph 5.)

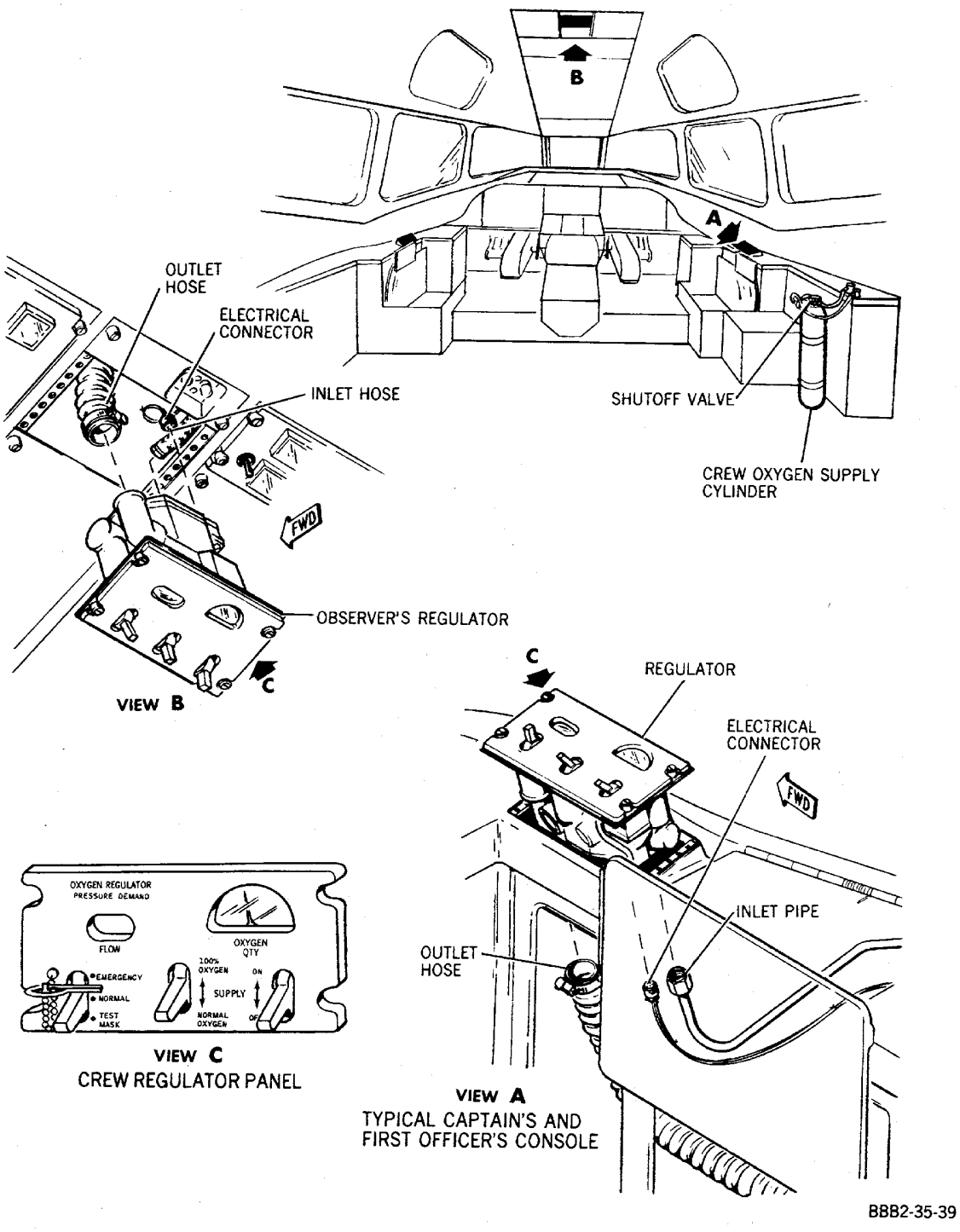


CAG(IGDS)

BBB2-35-1A

Crew Oxygen Diluter-Demand Regulators -- Removal/Installation
Figure 201/35-10-02-990-802

EFFECTIVITY
WJE 401-405, 409, 410, 873-881, 883, 884, 886, 887, 892, 893



Crew Oxygen Diluter-Demand Regulators -- Removal/Installation
Figure 202/35-10-02-990-803

4. Check Crew Oxygen Diluter-Demand Regulator

A. Check Regulator

(1) Check condition of unit and connections.

(2) Check security of mounting and connections.

WARNING: OPEN VALVE SLOWLY TO AVOID POSSIBILITY OF FIRE.

(3) Open crew oxygen cylinder shutoff valve.

WARNING: USE THE HAZARDOUS MATERIAL WARNINGS GIVEN BELOW FOR THE STEPS THAT FOLLOW.

THE HAZARDOUS MATERIAL WARNINGS ARE LISTED AFTER THE INTRODUCTION SECTION IN THE FRONT OF THE AMM.

Hazardous Material Warnings

HAZMAT 1182, BUBBLE FLUID/LEAK TEST (DPM 6045)

HAZMAT 1000, REFER TO MSDS

CAUTION: USE CARE TO PREVENT BUBBLE FLUID SOLUTION FROM ENTERING ANY VALVE OR FITTING. ALL TESTED PARTS MUST BE WIPED CLEAN AND DRIED IMMEDIATELY AFTER TESTING.

(4) Use bubble fluid to check for leaks at regulator inlet and outlet.

(5) Close crew oxygen cylinder shutoff valve.

5. Adjustment/Test Crew Oxygen Diluter-Demand Regulator

A. Test Regulator

WARNING: OPEN VALVE SLOWLY TO AVOID POSSIBILITY OF FIRE.

(1) Open crew oxygen cylinder shutoff valve.

(2) Place regulator toggles in following positions:

(a) Supply toggle in ON position

NOTE: The oxygen cylinder pressure gage should indicate approximately 1850 psig (12765.0 kPa), and the pressure gage on the diluter-demand regulator should indicate 50 to 75 psig (345.0 to 517.5 kPa).

(b) Diluter toggle in 100% OXYGEN position, then to NORMAL OXYGEN position

(c) Emergency toggle in NORMAL position.

(3) Hold mask to face. Oxygen should be supplied to mask and, on inhalation, flowmeter should blink in each diluter toggle position.

(4) Place supply toggle in OFF position. No oxygen should be supplied to mask on inhalation after any trapped air is purged.

(5) Place regulator toggles in following positions:

(a) Supply toggle in ON position.

(b) Diluter toggle in 100% OXYGEN position.

(c) Emergency toggle in EMERGENCY position, then to TEST MASK position.

NOTE: Safety pin must be removed from emergency toggle before toggle can be placed in EMERGENCY position.

(6) There should be steady flow of oxygen to mask in each EMERGENCY toggle position.

(7) Close crew oxygen cylinder shutoff valve.

(8) Place EMERGENCY toggle in TEST MASK position to bleed system pressure.

(9) Place emergency toggle in NORMAL position and install safety pin.

(10) Place captain's and first officer's supply toggle in ON position and safety with lockwire (FED-J-W-1177/9 copper).

(11) Place selector toggle in 100% OXYGEN position when regulator is not in use.

6. Recommended Cleaning Procedure - Crew Oxygen Mask

NOTE: Complete cleaning of mask should not be attempted in aircraft, as this requires disassembly. If complete cleaning is required, return mask to overhaul depot.

A. Clean Mask

WARNING: USE THE HAZARDOUS MATERIAL WARNINGS GIVEN BELOW FOR THE STEPS THAT FOLLOW.

THE HAZARDOUS MATERIAL WARNINGS ARE LISTED AFTER THE INTRODUCTION SECTION IN THE FRONT OF THE AMM.

Hazardous Material Warnings

HAZMAT 1030, ISOPROPYL ALCOHOL (DPM 530)

HAZMAT 1000, REFER TO MSDS

CAUTION: DO NOT ALLOW ALCOHOL TO ENTER MICROPHONE OR ELECTRICAL CONNECTION.

(1) Clean facepiece, inlet hose, and harness using clean lint-free cloth or swab moistened with isopropyl alcohol.

(2) Allow all parts to dry at room temperature.

(3) If necessary, remove excess alcohol with mild jet of oil-free air or clean lint-free cotton cloth.

WJE

WJE

CREW OXYGEN DILUTER-DEMAND REGULATOR - MAINTENANCE PRACTICES

WJE

1. General

WJE

A. Refer to B/E AEROSPACE CMM 35-10-61 for Maintenance Practices.

CREW OXYGEN MASK - MAINTENANCE PRACTICES

1. General

A. The removal and installation procedures for all crew oxygen masks are identical. The captain's mask breathing-tube connector and microphone jack are located on the inboard side of the left console. The first officer's mask breathing-tube connector and microphone jack are located on the aft face of the right console. The observer's mask breathing-tube connector and microphone jack are located in the flight compartment ceiling, adjacent to the standby compass.

WJE 412, 414

WJE B. Refer to B/E AEROSPACE CMM 35-10-61 for more information.

WJE **WJE 401-412, 414, 873-881, 883, 884, 886, 887, 892, 893**

2. Equipment and Materials

NOTE: Equivalent substitutes may be used instead of the following listed items:

NOTE: It is possible that some materials in the Equipment and Materials List cannot be used for some or all of their necessary applications. Before you use the materials, make sure the types, quantities, and applications of the materials necessary are legally permitted in your location. All persons must obey all applicable federal, state, local, and provincial laws and regulations when it is necessary to work with these materials.

Table 201

	Name and Number	Manufacturer
	CAUTION: ISOPROPYL ALCOHOL IS FLAMMABLE; EXERCISE NORMAL SAFETY PRECAUTIONS DURING USE.	
	Spring scale 0 to 50 pounds (0 to 22.68 kg)	
	Isopropyl alcohol DPM 530	
WJE	**WJE 412, 414**	
WJE WJE WJE	Novus 1 DPM 6152 CPN 35–10–0110	Novus, Inc. (56336)
WJE	**WJE 401-412, 414, 873-881, 883, 884, 886, 887, 892, 893**	

3. Removal/Installation Crew Mask

A. Remove Mask

(1) Disconnect microphone plug from jack.

(2) Disconnect tube end of mask from oxygen supply connector.

(3) Remove mask from hanger.

B. Install Mask

(1) Place mask in mask hanger.

(2) Connect tube end of mask to oxygen supply connector.

(3) Connect microphone plug into jack.

4. Adjustment/Test Crew Mask

A. Test Connectors

(1) Secure string harness and spring scale to tube plug.

(2) Pull on scale. If tension required to remove plug from receptacle is less than 12 pounds (5.44 kg) or more than 30 pounds (13.60 kg), replace connector and retest.

NOTE: Pull test should be performed on crew oxygen mask hose connector, when connector or oxygen mask is replaced.

5. Check Crew Mask

A. Check Mask

(1) Visually check crew oxygen mask and connections for condition and installation.

(2) Check flight interphone circuit. (AUDIO INTEGRATING, SUBJECT 23-50-00, paragraph 3)

6. Recommended Cleaning Procedure - Crew Oxygen Mask

NOTE: Complete cleaning of mask should not be attempted in aircraft, as this requires disassembly. If complete cleaning is required, return mask to overhaul depot.

A. Clean Mask

WJE 412, 414

WARNING: ISOPROPYL ALCOHOL IS AN AGENT THAT IS FLAMMABLE, EXPLOSIVE, AND POISONOUS. MAKE SURE ALL PERSONS OBEY ALL OF THE PRECAUTIONS WHEN ISOPROPYL ALCOHOL IS USED.

- GAS/AIR MIXTURES MORE THAN THE LOWER EXPLOSIVE LIMIT (LEL) CAN CAUSE AN EXPLOSION IF HIGH HEAT, SPARKS, OR FLAMES SUPPLY IGNITION.
- USE IN AN AREA OPEN TO THE AIR.
- CLOSE THE CONTAINER WHEN NOT USED.
- DO NOT GET ISOPROPYL ALCOHOL IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES.
- DO NOT BREATHE THE GAS.

WARNING: REFER TO THE APPLICABLE MANUFACTURER'S OR SUPPLIERS MSDS FOR:

- MORE PRECAUTIONARY DATA.
- APPROVED SAFETY EQUIPMENT.
- EMERGENCY MEDICAL AID.
- TALK WITH THE LOCAL SAFETY DEPARTMENT OR AUTHORITIES FOR THE PROCEDURES TO DISCARD THIS HAZARDOUS AGENT.

CAUTION: DO NOT ALLOW ALCOHOL TO ENTER MICROPHONE OR ELECTRICAL CONNECTION.

WJE (1) Disinfect the face seal assy, and the pneumatic harness with clean low lint cloth, moistened
WJE with isopropyl alcohol solvent. Do not clean the face piece lens with isopropyl alcohol solvent.
WJE Refer to B/E Aerospace CMM 35-10-60 for more information..

(a) Clean the facepiece lens with Novus Plastic Clean and Shine No. 1 and a clean low lint cloth only.

WJE 401-411, 873-881, 883, 884, 886, 887, 892, 893

WARNING: ISOPROPYL ALCOHOL IS AN AGENT THAT IS FLAMMABLE, EXPLOSIVE, AND POISONOUS. MAKE SURE ALL PERSONS OBEY ALL OF THE PRECAUTIONS WHEN ISOPROPYL ALCOHOL IS USED.

- GAS/AIR MIXTURES MORE THAN THE LOWER EXPLOSIVE LIMIT (LEL) CAN CAUSE AN EXPLOSION IF HIGH HEAT, SPARKS, OR FLAMES SUPPLY IGNITION.
- USE IN AN AREA OPEN TO THE AIR.
- CLOSE THE CONTAINER WHEN NOT USED.
- DO NOT GET ISOPROPYL ALCOHOL IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES.
- DO NOT BREATHE THE GAS.

WARNING: REFER TO THE APPLICABLE MANUFACTURER'S OR SUPPLIERS MSDS FOR:

- MORE PRECAUTIONARY DATA.
- APPROVED SAFETY EQUIPMENT.
- EMERGENCY MEDICAL AID.
- TALK WITH THE LOCAL SAFETY DEPARTMENT OR AUTHORITIES FOR THE PROCEDURES TO DISCARD THIS HAZARDOUS AGENT.

CAUTION: DO NOT ALLOW ALCOHOL TO ENTER MICROPHONE OR ELECTRICAL CONNECTION.

(2) Clean facepiece, hose, and harness using clean lint-free cloth or swab moistened with isopropyl alcohol.

WJE 401-412, 414, 873-881, 883, 884, 886, 887, 892, 893

(3) Allow all parts to dry at room temperature.

(4) If necessary, remove excess alcohol with mild jet of oil-free air or clean lint-free cotton cloth.

CREW OXYGEN MASK - MAINTENANCE PRACTICES

1. General

A. The Captain's, First Officer's and Observer's mask, mask-mounted regulator, and connector tube with microphone connector are located in each of the positions in stowage boxes in the flight compartment. The removal and installation procedures for all crew oxygen masks are identical.

B. For test mask procedures, refer to Paragraph 4..

2. Equipment and Materials

NOTE: Equivalent substitutes may be used instead of the following listed items:

NOTE: It is possible that some materials in the Equipment and Materials List cannot be used for some or all of their necessary applications. Before you use the materials, make sure the types, quantities, and applications of the materials necessary are legally permitted in your location. All persons must obey all applicable federal, state, local, and provincial laws and regulations when it is necessary to work with these materials.

Name and Number	Manufacturer
CAUTION: ISOPROPYL ALCOHOL IS FLAMMABLE; EXERCISE NORMAL SAFETY PRECAUTIONS DURING USE.	
Isopropyl alcohol DPM 530	

3. Removal/Installation Crew Mask

A. Remove Mask

WARNING: TAG AND USE SAFETY CLIPS TO SAFETY THE CIRCUIT BREAKERS. IF THE CIRCUIT BREAKERS ARE NOT OPENED, TAGGED, AND SAFETIED, INJURY TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(1) Open these circuit breakers and install safety tags:

LOWER EPC, XFER BUS

Row	Col	Number	Name
T	42	B10-386	FLIGHT INTERPHONE -2

OVERHEAD EMERGENCY DC BUS

Row	Col	Number	Name
A	10	B10-47	FLIGHT INTERPHONE-1
B	8	B10-7	VHF COMM-1

UPPER EPC, RIGHT RADIO DC BUS

Row	Col	Number	Name
G	5	B10-44	VHF COMM-2

(2) Close crew oxygen cylinder shutoff valve.

(3) Grasp mask-mounted regulator and pull mask straight out of stowage box. (Figure 201)

NOTE: When mask-mounted regulator is grasped and squeezed from sides, a flow of oxygen will inflate the mask harness. Release of sides of regulator will stop flow and bleed off harness.

(4) Disconnect mask radio plug connector (1) from stowage box supply hose radio plug connector (2).

(5) Disconnect mask oxygen inlet fitting (3) from stowage box supply hose fitting (4).

B. Install Masks

WARNING: TAG AND USE SAFETY CLIPS TO SAFETY THE CIRCUIT BREAKERS. IF THE CIRCUIT BREAKERS ARE NOT OPENED, TAGGED, AND SAFETIED, INJURY TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(1) Make sure that these circuit breakers are open and have safety tags:

LOWER EPC, XFER BUS

Row	Col	Number	Name
T	42	B10-386	FLIGHT INTERPHONE -2

OVERHEAD EMERGENCY DC BUS

Row	Col	Number	Name
A	10	B10-47	FLIGHT INTERPHONE-1
B	8	B10-7	VHF COMM-1

UPPER EPC, RIGHT RADIO DC BUS

Row	Col	Number	Name
G	5	B10-44	VHF COMM-2

(2) Connect mask oxygen inlet fitting (3) to stowage box supply hose fitting (4). (Figure 201).

(3) Connect mask radio plug connector (1) to stowage box supply hose radio plug connector (2).

(4) Make certain that mask harness and oxygen supply hose is not twisted or kinked. (Figure 202)

(5) Install stowage box supply hose in coiled condition.

(6) Fold and stow harness inside mask.

(7) Place mask in stowage box with nose bridge in first.

(8) Make certain that demand lever, on diluter-demand regulator, is in 100% (down) position and that EMERGENCY control is in NORMAL position.

(9) Actuate RESET TEST slide control on left stowage box door. Flag should disappear and door should be allowed to close.

(10) Align pin in left door with recess in regulator and hold against left door.

(11) Close right stowage box door.

(12) Remove the safety tags and close these circuit breakers:

LOWER EPC, XFER BUS

Row	Col	Number	Name
T	42	B10-386	FLIGHT INTERPHONE -2

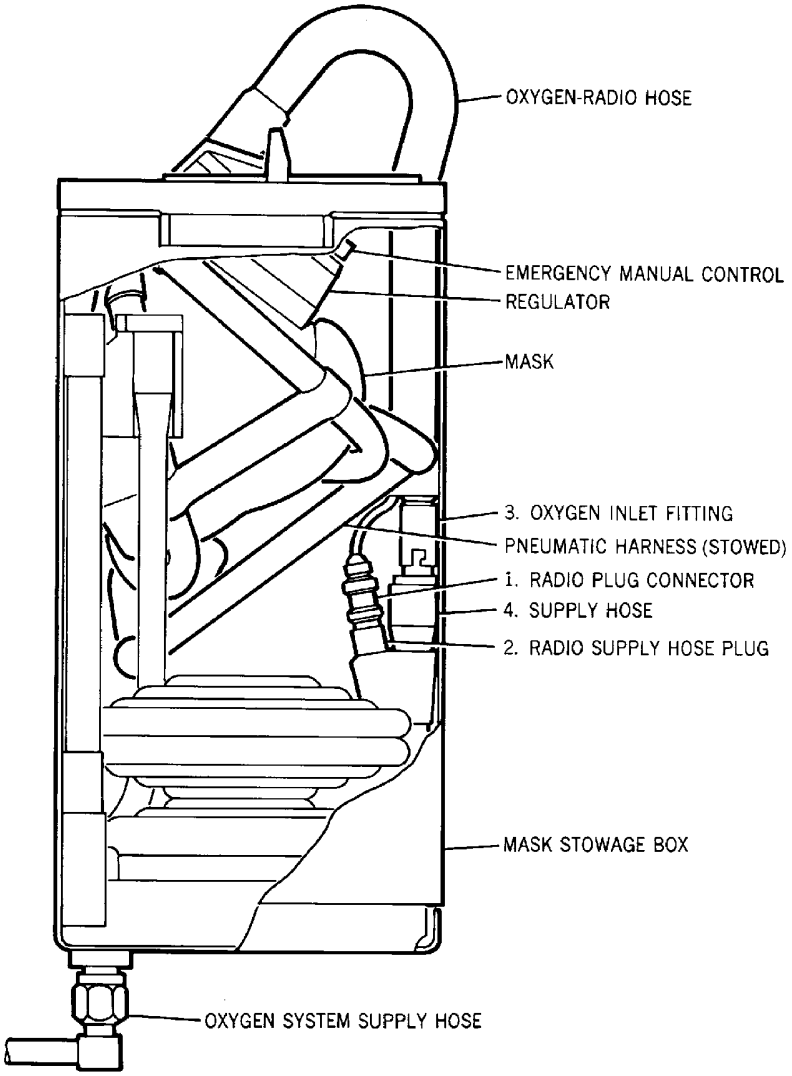
OVERHEAD EMERGENCY DC BUS

Row	Col	Number	Name
A	10	B10-47	FLIGHT INTERPHONE-1
B	8	B10-7	VHF COMM-1

UPPER EPC, RIGHT RADIO DC BUS

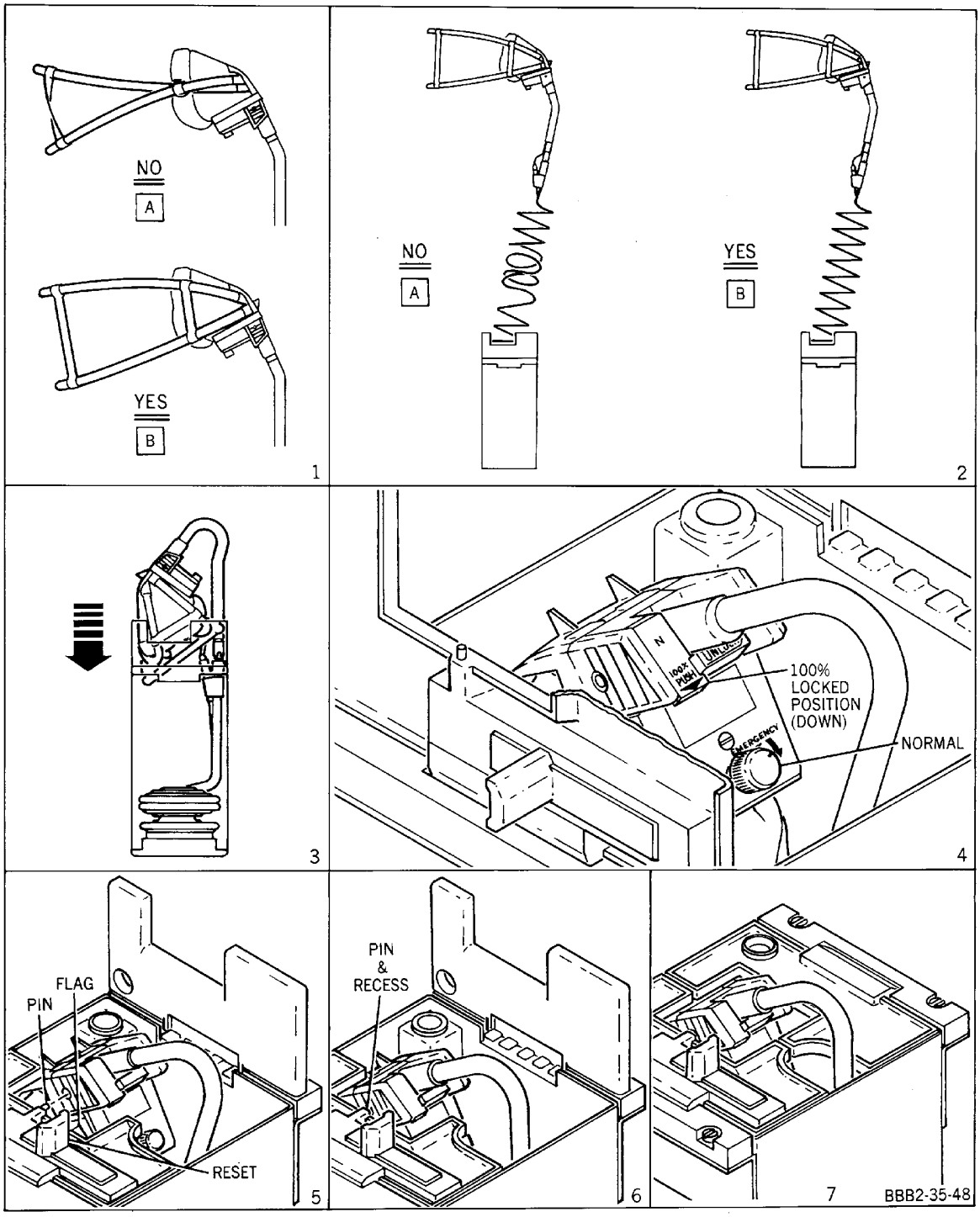
Row	Col	Number	Name
G	5	B10-44	VHF COMM-2

(13) Test crew mask. (Paragraph 4.)



BBB2-35-49

Oxygen Mask -- Removal/Installation
Figure 201/35-10-03-990-801



Mask Stowage -- Diagram
Figure 202/35-10-03-990-802

4. Adjustment/Test Crew Mask

A. Test Mask

(1) Make sure that these circuit breakers are closed:

LOWER EPC, XFER BUS

Row	Col	Number	Name
T	42	B10-386	FLIGHT INTERPHONE -2

OVERHEAD EMERGENCY DC BUS

Row	Col	Number	Name
A	10	B10-47	FLIGHT INTERPHONE-1
B	8	B10-7	VHF COMM-1

UPPER EPC, RIGHT RADIO DC BUS

Row	Col	Number	Name
G	5	B10-44	VHF COMM-2

(2) Open crew oxygen cylinder shutoff valve.

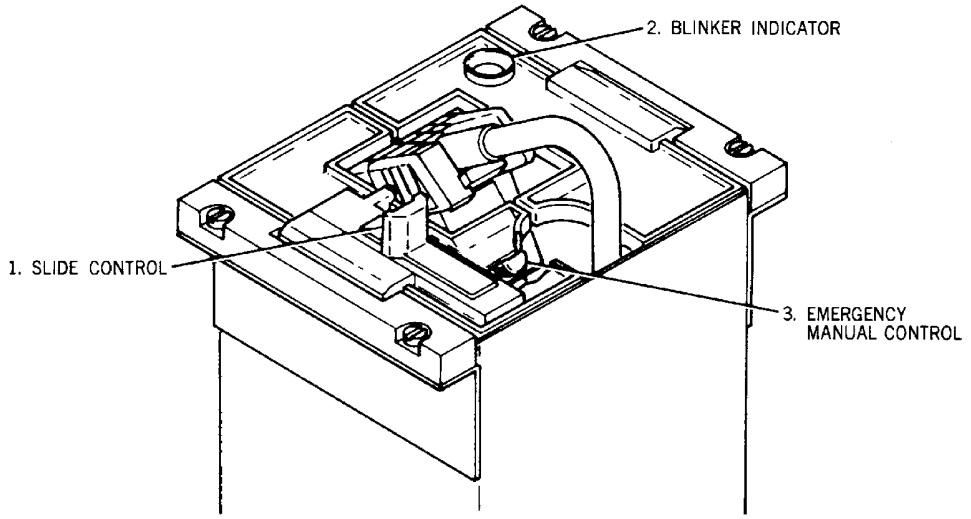
(3) Fully push RESET TEST slide control (1) to TEST position and hold, flow indicator blinker (2) should show yellow, indicating that valve has opened and regulator is pressurized. (Figure 203)

NOTE: RESET TEST slide control (1) will return to closed position automatically when released.

(4) On emergency manual control (3), push control into PRESS TO TEST position for approximately one or two seconds, flow indicator blinker (2) should show yellow indicating that regulator demand system is delivering oxygen into mask.

(5) While conducting Paragraph 4.A.(4), press intercom PRESS TO TALK switch. If a steady hiss is heard through intercom system, mask microphone is operating correctly.

(6) Release RESET TEST slide control (1), slide control should automatically return to closed position, regulator and pipe to flow indicator blinker pressure should automatically bleed off and flow indicator yellow range should disappear.



Crew Mask -- Adjustment/Test
Figure 203/35-10-03-990-804

5. Recommended Cleaning Procedure - Crew Oxygen Mask

NOTE: Complete cleaning of mask should not be attempted in aircraft, as this requires disassembly. If complete cleaning is required, return mask to overhaul depot.

A. Clean Mask

(1) Remove mask from stowage box. (Paragraph 3.A.(2) and Paragraph 3.A.(3))

WARNING: ISOPROPYL ALCOHOL IS AN AGENT THAT IS FLAMMABLE, EXPLOSIVE, AND POISONOUS. MAKE SURE ALL PERSONS OBEY ALL OF THE PRECAUTIONS WHEN ISOPROPYL ALCOHOL IS USED.

- GAS/AIR MIXTURES MORE THAN THE LOWER EXPLOSIVE LIMIT (LEL) CAN CAUSE AN EXPLOSION IF HIGH HEAT, SPARKS, OR FLAMES SUPPLY IGNITION.
- USE IN AN AREA OPEN TO THE AIR.
- CLOSE THE CONTAINER WHEN NOT USED.
- DO NOT GET ISOPROPYL ALCOHOL IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES.
- DO NOT BREATHE THE GAS.

WARNING: REFER TO THE APPLICABLE MANUFACTURER'S OR SUPPLIER'S MSDS FOR:

- MORE PRECAUTIONARY DATA
- APPROVED SAFETY EQUIPMENT
- EMERGENCY MEDICAL AID.

(WARNING PRECEDES)

TALK WITH THE LOCAL SAFETY DEPARTMENT OR AUTHORITIES FOR THE PROCEDURES TO DISCARD THIS HAZARDOUS AGENT.

CAUTION: DO NOT ALLOW ALCOHOL TO ENTER MICROPHONE OR ELECTRICAL CONNECTION.

(2) Clean facepiece, inlet hose, and harness using clean lint-free cloth or swab moistened with isopropyl alcohol.

(3) Allow all parts to dry at room temperature.

(4) If necessary, remove excess alcohol with mild jet of oil-free air or clean lint-free cotton cloth.

(5) Install mask in stowage box. (Paragraph 3.B.(4) through Paragraph 3.B.(11))

6. Check Captain's, First Officer's and Observer's Diluter-Demand Regulators

A. Diluter-Demand Regulator Check

WARNING: TAG AND USE SAFETY CLIPS TO SAFETY THE CIRCUIT BREAKERS. IF THE CIRCUIT BREAKERS ARE NOT OPENED, TAGGED, AND SAFETIED, INJURY TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(1) Open these circuit breakers and install safety tags:

LOWER EPC, XFER BUS

Row	Col	Number	Name
T	42	B10-386	FLIGHT INTERPHONE -2

OVERHEAD EMERGENCY DC BUS

Row	Col	Number	Name
A	10	B10-47	FLIGHT INTERPHONE-1
B	8	B10-7	VHF COMM-1

UPPER EPC, RIGHT RADIO DC BUS

Row	Col	Number	Name
G	5	B10-44	VHF COMM-2

(2) Remove Captain's oxygen mask as follows:

(a) Grasp mask-mounted regulator and pull mask straight out of stowage box.

NOTE: When mask-mounted regulator is grasped and squeezed from sides, flow of oxygen will inflate mask harness. Release of sides of regulator will stop flow and bleed off harness.

(3) Disconnect mask radio plug connector from stowage box supply hose radio plug connector.

(4) Disconnect mask oxygen inlet fitting from stowage box supply hose fitting.

(5) Send regulator to shop for functional check.

(6) Remove First Officer's oxygen mask as follows:

(a) Grasp mask-mounted regulator and pull mask straight out of stowage box.

NOTE: When mask-mounted regulator is grasped and squeezed from sides, flow of oxygen will inflate mask harness. Release of sides of regulator will stop flow and bleed off harness.

(7) Disconnect mask radio plug connector from stowage box supply hose radio plug connector.

(8) Disconnect mask oxygen inlet fitting from stowage box supply hose fitting.

(9) Send regulator to shop for functional check.

(10) Remove Observer's oxygen mask as follows:

(a) Grasp mask-mounted regulator and pull mask straight out of stowage box.

NOTE: When mask-mounted regulator is grasped and squeezed from sides, flow of oxygen will inflate mask harness. Release of sides of regulator will stop flow and bleed off harness.

(11) Disconnect mask radio plug connector from stowage box supply hose radio plug connector.

(12) Disconnect mask oxygen inlet fitting from stowage box supply hose fitting.

(13) Send regulator to shop for functional check.

WARNING: TAG AND USE SAFETY CLIPS TO SAFETY THE CIRCUIT BREAKERS. IF THE CIRCUIT BREAKERS ARE NOT OPENED, TAGGED, AND SAFETIED, INJURY TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(14) Make sure that these circuit breakers are open and have safety tags:

LOWER EPC, XFER BUS

Row	Col	Number	Name
T	42	B10-386	FLIGHT INTERPHONE -2

OVERHEAD EMERGENCY DC BUS

Row	Col	Number	Name
A	10	B10-47	FLIGHT INTERPHONE-1
B	8	B10-7	VHF COMM-1

UPPER EPC, RIGHT RADIO DC BUS

Row	Col	Number	Name
G	5	B10-44	VHF COMM-2

(15) Install serviceable Captain's oxygen mask as follows:

(a) Connect mask oxygen inlet fitting to stowage box supply hose fitting.

(b) Connect mask radio plug connector to stowage box supply hose radio plug connector.

(c) Make certain that mask harness and oxygen supply hose is not twisted or kinked. (Figure 202)

(d) Install stowage box supply hose in coiled condition.

(e) Fold and stow harness inside mask.

(f) Place mask in stowage box with nose bridge in first.

(g) Make certain demand lever, on diluter-demand regulator is in 100% (down) position and EMERGENCY control is in NORMAL position.

(h) Actuate RESET TEST slide control on left stowage box door; flag should disappear and door should be allowed to close.

(i) Align pin in left door with recess in regulator and hold against left door.

(16) Install serviceable First Officer's oxygen mask as follows:

(a) Connect mask oxygen inlet fitting to stowage box supply hose fitting.

(b) Connect mask radio plug connector to stowage box supply hose radio plug connector.

(c) Make certain that mask harness and oxygen supply hose is not twisted or kinked. (Figure 202)

(d) Install stowage box supply hose in coiled condition.

(e) Fold and stow harness inside mask.

(f) Place mask in stowage box with nose bridge in first.

(g) Make certain demand lever, on diluter-demand regulator is in 100% (down) position and EMERGENCY control is in NORMAL position.

(h) Actuate RESET TEST slide control on left stowage box door; flag should disappear and door should be allowed to close.

(i) Align pin in left door with recess in regulator and hold against left door.

(17) Install serviceable Observer's oxygen mask as follows:

(a) Connect mask oxygen inlet fitting to stowage box supply hose fitting.

(b) Connect mask radio plug connector to stowage box supply hose radio plug connector.

(c) Make certain that mask harness and oxygen supply hose is not twisted or kinked. (Figure 202)

(d) Install stowage box supply hose in coiled condition.

(e) Fold and stow harness inside mask.

(f) Place mask in stowage box with nose bridge in first.

(g) Make certain demand lever, on diluter-demand regulator is in 100% (down) position and EMERGENCY control is in NORMAL position.

(h) Actuate RESET TEST slide control on left stowage box door; flag should disappear and door should be allowed to close.

(i) Align pin in left door with recess in regulator and hold against left door.

(18) Remove the safety tags and close these circuit breakers:

LOWER EPC, XFER BUS

Row	Col	Number	Name
T	42	B10-386	FLIGHT INTERPHONE -2

OVERHEAD EMERGENCY DC BUS

Row	Col	Number	Name
A	10	B10-47	FLIGHT INTERPHONE-1
B	8	B10-7	VHF COMM-1

UPPER EPC, RIGHT RADIO DC BUS

Row	Col	Number	Name
G	5	B10-44	VHF COMM-2

7. Test Captain's, First Officer's and Observer's Oxygen Mask

A. Captain's Oxygen Mask Test

(1) Open crew oxygen cylinder shutoff valve.

(2) Fully push TEST slide control on left storage box door to TEST position and hold; flow indicator blinker should show yellow, indicating valve has opened and regulator is pressurized.

NOTE: TEST control will return to close position automatically when released.

(3) On EMERGENCY manual control located on captain's oxygen control panel, push control into TEST position for approximately one or two seconds:

(a) FLOW indicator blinker should show yellow indicating regulator demand system is delivering oxygen into mask.

(4) While performing Paragraph 7.A.(3), on Captain's Audio Panel, press intercom PRESS TO TALK switch; if steady hiss is heard through intercom system, mask microphone is operating correctly.

(5) Release TEST control; TEST control should automatically return to NORMAL position. Regulator and pipe to flow indicator blinker pressure should automatically bleed off and flow indicator yellow range should disappear.

B. First Officer's Oxygen Mask Test

(1) Open crew oxygen cylinder shutoff valve.

(2) Fully push TEST slide control on right storage box door to TEST position and hold; flow indicator blinker should show yellow, indicating valve has opened and regulator is pressurized.

NOTE: TEST control will return to close position automatically when released.

(3) On EMERGENCY manual control located on First Officer's oxygen control panel, push control into TEST position for approximately one or two seconds:

(a) FLOW indicator blinker should show yellow indicating regulator demand system is delivering oxygen into mask.

(4) While performing Paragraph 7.B.(3), on First Officer's Audio Panel, press intercom PRESS TO TALK switch; if steady hiss is heard through intercom system, mask is operating correctly.

(5) Release TEST control; TEST control should automatically return to NORMAL position. Regulator and pipe to flow indicator blinker pressure should automatically bleed off and flow indicator yellow range should disappear.

C. Observer's Oxygen Mask Test

(1) Open crew oxygen cylinder shutoff valve.

(2) Fully push TEST slide control on Obsever's storage box door to TEST position and hold; flow indicator blinker should show yellow, indicating valve has opened and regulator is pressurized.

NOTE: TEST control will return to close position automatically when released.

(3) On EMERGENCY manual control located on Observer's oxygen control panel, push control into TEST position for approximately one or two seconds:

(a) FLOW indicator blinker should show yellow indicating regulator demand system is delivering oxygen into mask.

(4) While performing Paragraph 7.C.(3), on Observer's Audio Panel, press intercom PRESS TO TALK switch; if steady hiss is heard through intercom system, mask microphone is operating correctly.

(5) Release TEST control; TEST control should automatically return to NORMAL position. Regulator and pipe to flow indicator blinker pressure should automatically bleed off and flow indicator yellow range should disappear.

CREW OXYGEN MASK - REMOVAL INSTALLATION

1. General

A. This procedure contains MSG-3 task card data.

TASK 35-10-03-902-801

2. Restore Mask Harness Assembly (Inflatable Pneumatic Harness Type)

NOTE: This procedure is a scheduled maintenance task.

A. References

Reference	Title
35-10-00 P/B 201 Config 2	CREW OXYGEN SYSTEM - MAINTENANCE PRACTICES

B. Restore Mask Harness Assembly (Inflatable Pneumatic Harness Type)

SUBTASK 35-10-03-020-001

(1) Remove mask assembly.

WARNING: TAG AND USE SAFETY CLIPS TO SAFETY THE CIRCUIT BREAKERS. IF THE CIRCUIT BREAKERS ARE NOT OPENED, TAGGED, AND SAFETIED, INJURY TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(a) Open these circuit breakers and install safety tags:

LOWER EPC, XFER BUS

Row	Col	Number	Name
T	42	B10-386	FLIGHT INTERPHONE -2

OVERHEAD EMERGENCY DC BUS

Row	Col	Number	Name
A	10	B10-47	FLIGHT INTERPHONE-1
B	8	B10-7	VHF COMM-1

UPPER EPC, RIGHT RADIO DC BUS

Row	Col	Number	Name
G	5	B10-44	VHF COMM-2

(b) Close crew oxygen cylinder shutoff valve.

(c) Grasp mask-mounted regulator and pull mask straight out of stowage box. (Figure 401)

NOTE: When mask-mounted regulator is grasped and squeezed from sides, a flow of oxygen will inflate the mask harness. Release of sides of regulator will stop flow and bleed off harness.

(d) Disconnect mask radio plug connector (1) from stowage box supply hose radio plug connector (2).

(e) Disconnect mask oxygen inlet fitting (3) from stowage box supply hose fitting (4).

(f) Send the mask assembly to the shop for restoration.

SUBTASK 35-10-03-420-001

(2) Install mask assembly.

(a) Connect mask oxygen inlet fitting (3) to stowage box supply hose fitting (4). (Figure 401)

(b) Connect mask radio plug connector (1) to stowage box supply hose radio plug connector (2).

(c) Make certain that mask harness and oxygen supply hose is not twisted or kinked. (Figure 402)

(d) Install stowage box supply hose in coiled condition.

(e) Fold and stow harness inside mask.

(f) Place mask in stowage box with nose bridge in first.

(g) Make certain that demand lever, on diluter-demand regulator, is in 100% (down) position and that EMERGENCY control is in NORMAL position.

(h) Actuate RESET TEST slide control on left stowage box door. Flag should disappear and door should be allowed to close.

(i) Align pin in left door with recess in regulator and hold against left door.

(j) Close right stowage box door.

(k) Remove the safety tags and close these circuit breakers:

LOWER EPC, XFER BUS

Row	Col	Number	Name
T	42	B10-386	FLIGHT INTERPHONE -2

OVERHEAD EMERGENCY DC BUS

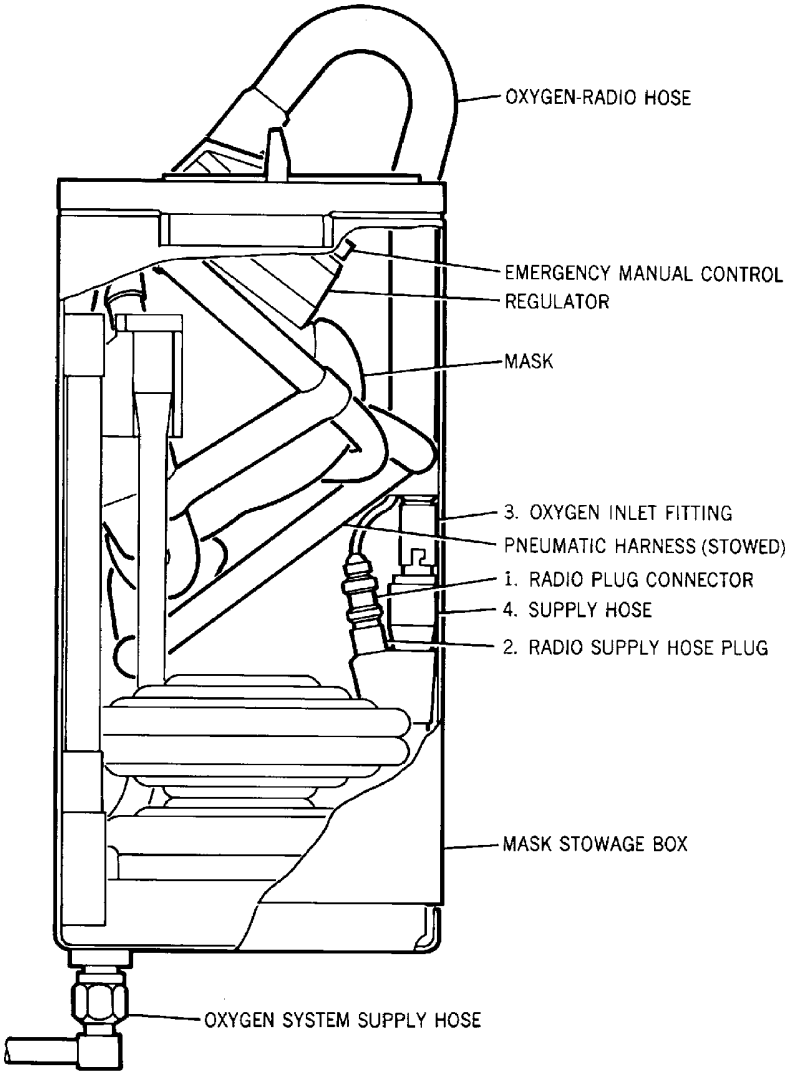
Row	Col	Number	Name
A	10	B10-47	FLIGHT INTERPHONE-1
B	8	B10-7	VHF COMM-1

UPPER EPC, RIGHT RADIO DC BUS

Row	Col	Number	Name
G	5	B10-44	VHF COMM-2

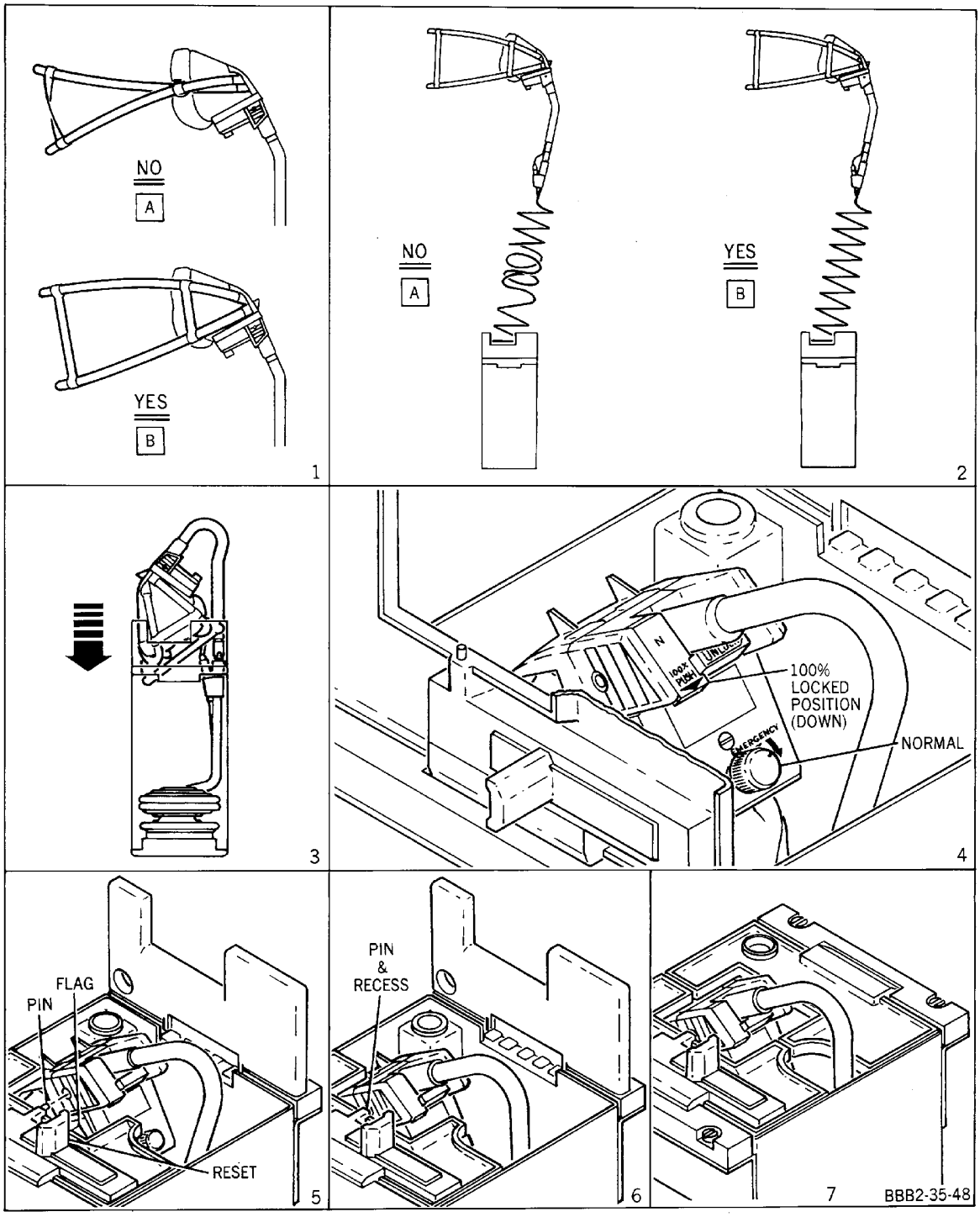
(l) Perform operational test of crew mask. (CREW OXYGEN SYSTEM - MAINTENANCE PRACTICES, PAGEBLOCK 35-10-00/201 Config 2)

——— END OF TASK ———



BBB2-35-49

Oxygen Mask -- Removal/Installation
Figure 401/35-10-03-990-805



Mask Stowage -- Diagram
Figure 402/35-10-03-990-806

CREW OXYGEN MASK - ADJUSTMENT/TEST

1. General

A. This procedure contains MSG-3 task card data.

TASK 35-10-03-710-801

2. Operational Check of the Oxygen Mask Microphone

WJE 401-412, 414, 873-881, 883, 884, 886, 887, 892, 893

A. Operational Check of the Crew Oxygen Mask Microphones (Baseline Configuration)

SUBTASK 35-10-03-710-001

(1) Do an operational check of the crew oxygen mask microphones (Baseline Configuration).

(a) Adjust the volume control on the cockpit speakers to mid-range.

(b) Press INT selector button on the audio control panel.

(c) Adjust INT volume to mid-range.

(d) Place Boom/Mask switch on jack panel (left console) to Mask position.

(e) Press the captain's control wheel Push to Talk (PTT) switch while speaking into the oxygen mask microphone.

1) Speak into the captain's mask microphone.

2) Speech should be audible and clear in the other station headsets and overhead speakers.

(f) Do steps B.1.a. thru B.1.e. for the copilot's oxygen mask microphone.

(g) For the observer's position, do steps B.1.a., B.1.b., B.1.c. and:

1) Push and hold the RADIO/INT switch to INT or the R/T - 1/C switch to 1/C (depending on audio control panel installed).

2) Speak into the observer's mask microphone.

3) Speech should be audible and clear in the other station headsets and overhead speakers.

(h) Put each oxygen mask on the quick release hanger or inside stowage box.

WJE 415-427, 429, 861-866, 868, 869, 871, 872, 891

B. Operational Check of the Crew Oxygen Mask Microphones (EROS)

SUBTASK 35-10-03-710-002

(1) Do an operational check of the crew oxygen mask microphones (EROS).

(a) Adjust the volume control on the cockpit speakers to mid-range.

(b) Press INT selector button on the audio control panel.

(c) Adjust INT volume to mid-range.

(d) On captain's oxygen mask and hose box, fully push RESET TEST slide control on stowage box to TEST position and hold. (Figure 501

1) Flow indicator blinker should show yellow momentarily and then return to black indicating that valve has opened and regulator is pressurized.

NOTE: RESET TEST slide control will return to closed position automatically when released.

(e) On diluter-demand mask mounted regulator, push emergency manual control switch into PRESS TO TEST position for approximately one or two seconds.

1) Flow indicator blinker should show yellow momentarily and then return to black, indicting that regulator demand system is delivering oxygen into mask.

(f) While conducting Paragraph C.1.e., , press captain's intercom PRESS TO TALK (PTT) switch.

1) A steady hiss should be audible through intercom system, indicating that mask microphone is operating correctly.

(g) Release RESET TEST slide control.

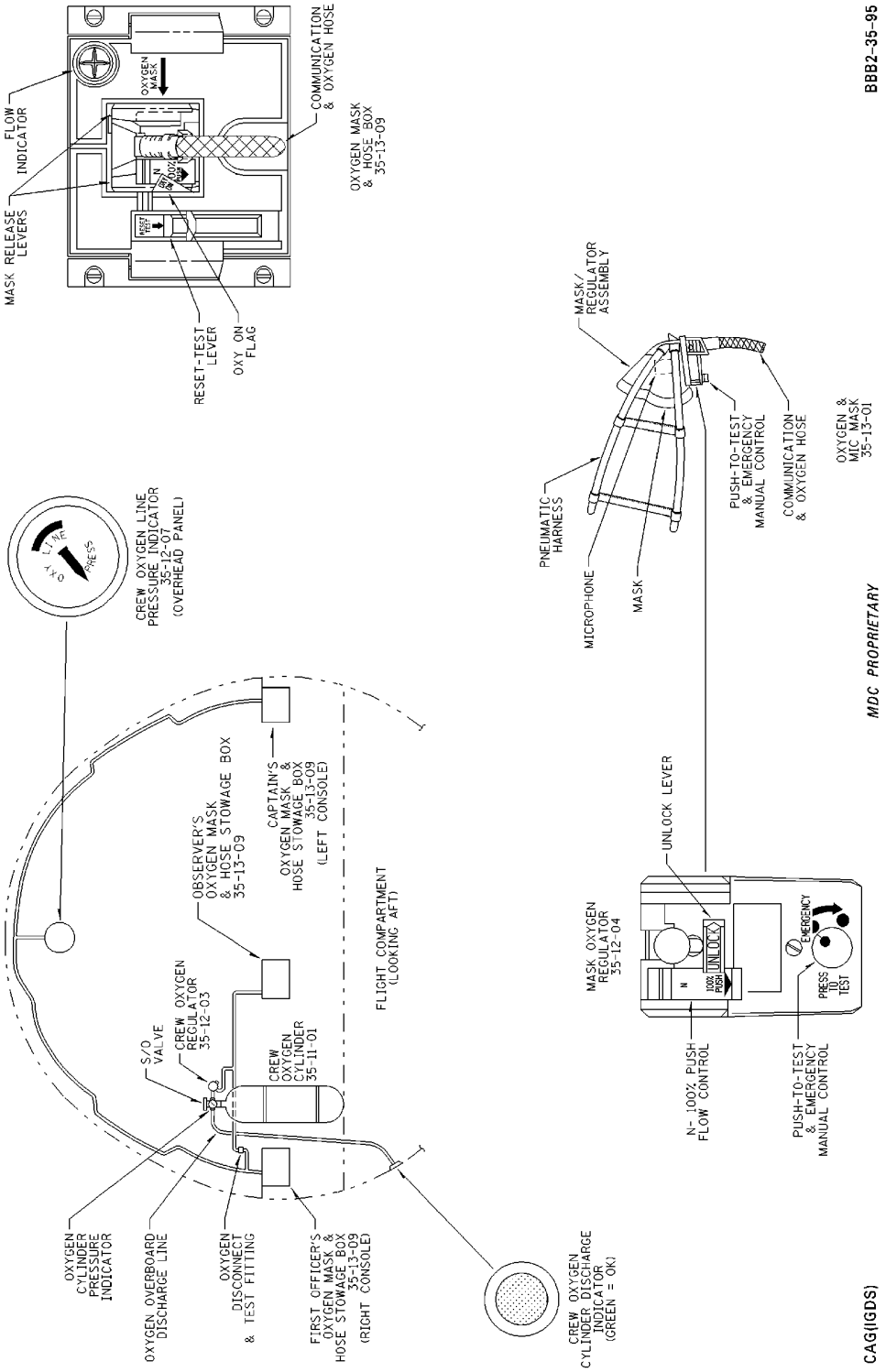
1) Slide control should automatically return to closed position.

2) Regulator and pipe to flow indicator blinker pressure should automatically bleed off and flow indicator yellow range should disappear.

(h) Repeat steps C.1.a. thru C.1.g. for first officer's mask.

(i) Repeat steps C.1.a. thru C.1.g. for first observer's mask.

——— END OF TASK ———



Crew Compartment Oxygen -- EROS Installation
Figure 501/35-10-03-990-807

CREW OXYGEN MASK STOWAGE BOX - MAINTENANCE PRACTICES

1. General

A. Crew oxygen mask stowage boxes are installed at each of the flight crew stations in the flight compartment. Each stowage box contains an inlet tube, valve, flow indicator blinker, slide control, and oxygen supply hose.

B. The removal and installation procedures for all crew mask stowage boxes are identical.

2. Removal/Installation Crew Mask Stowage Box

A. Remove Stowage Box

(1) Close oxygen clinder shutoff valve.

WARNING: TAG AND USE SAFETY CLIPS TO SAFETY THE CIRCUIT BREAKERS. IF THE CIRCUIT BREAKERS ARE NOT OPENED, TAGGED, AND SAFETIED, INJURY TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(2) Open these circuit breakers and install safety tags:

LOWER EPC, XFER BUS

Row	Col	Number	Name
T	42	B10-386	FLIGHT INTERPHONE -2

OVERHEAD EMERGENCY DC BUS

Row	Col	Number	Name
A	10	B10-47	FLIGHT INTERPHONE-1
B	8	B10-7	VHF COMM-1

UPPER EPC, RIGHT RADIO DC BUS

Row	Col	Number	Name
G	5	B10-44	VHF COMM-2

(3) Grasp mask-mounted regulator and pull mask straight out of stowage box. (Figure 201)

NOTE: When mask-mounted regulator is grasped and squeezed from sides a flow of oxygen will inflate mask harness. Release of the sides will stop flow and bleed off harness.

(4) Disconnect mask radio plug connector (1) from stowage box radio supply hose plug connector (2).

(5) Disconnect mask oxygen inlet fitting (3) from stowage box supply hose (4).

(6) Unfasten Dzus fasteners and remove stowage box from console.

(7) Disconnect and plug oxygen system supply hose from under bottom of stowage box and cap stowage box fitting.

(8) Disconnect stowage box radio connector from aircraft system connector.

B. Install Stowage Box

WARNING: TAG AND USE SAFETY CLIPS TO SAFETY THE CIRCUIT BREAKERS. IF THE CIRCUIT BREAKERS ARE NOT OPENED, TAGGED, AND SAFETIED, INJURY TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(1) Make sure that these circuit breakers are open and have safety tags:

LOWER EPC, XFER BUS

Row	Col	Number	Name
T	42	B10-386	FLIGHT INTERPHONE -2

OVERHEAD EMERGENCY DC BUS

Row	Col	Number	Name
A	10	B10-47	FLIGHT INTERPHONE-1
B	8	B10-7	VHF COMM-1

UPPER EPC, RIGHT RADIO DC BUS

Row	Col	Number	Name
G	5	B10-44	VHF COMM-2

(2) Connect stowage box radio connector to aircraft system connector.

(3) Connector oxygen system supply hose to fitting under bottom of stowage box.

(4) Align stowage box on console and lock Dzus fasteners.

(5) Remove the safety tags and close these circuit breakers:

LOWER EPC, XFER BUS

Row	Col	Number	Name
T	42	B10-386	FLIGHT INTERPHONE -2

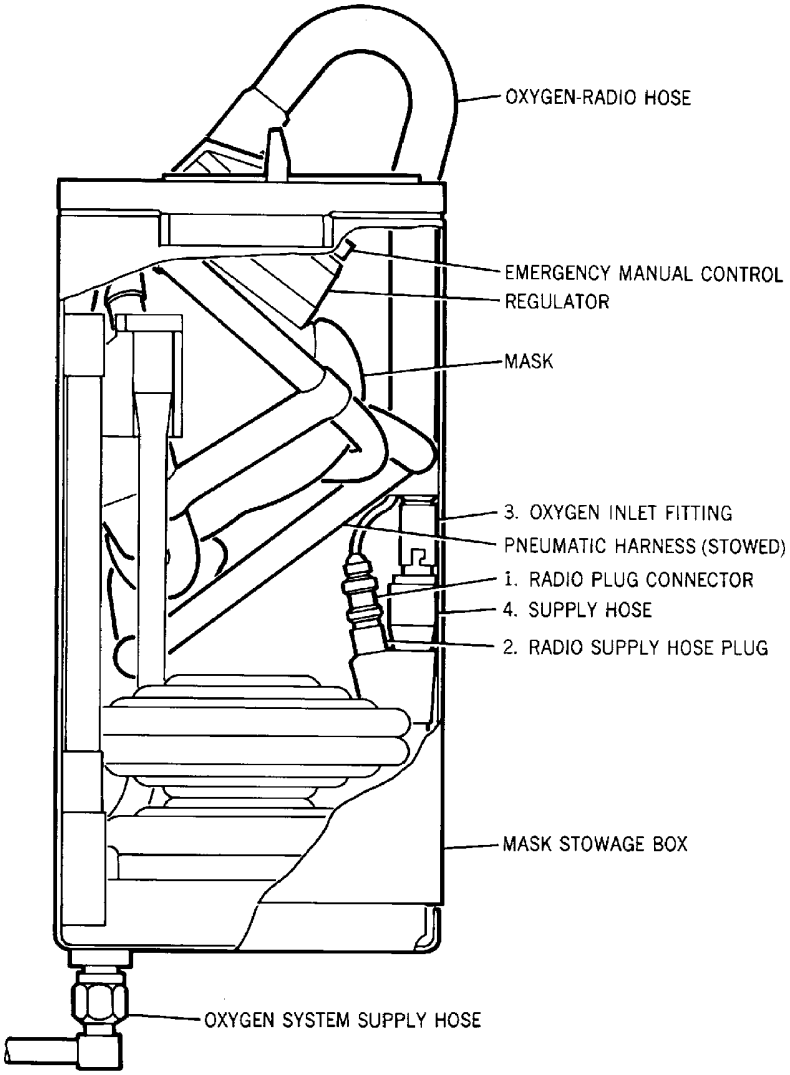
OVERHEAD EMERGENCY DC BUS

Row	Col	Number	Name
A	10	B10-47	FLIGHT INTERPHONE-1
B	8	B10-7	VHF COMM-1

UPPER EPC, RIGHT RADIO DC BUS

Row	Col	Number	Name
G	5	B10-44	VHF COMM-2

(6) Install and test mask. (CREW OXYGEN MASK - MAINTENANCE PRACTICES, PAGEBLOCK 35-10-03/201 Config 2)



BBB2-35-49

Oxygen Mask Stowage box -- Removal/Installation
Figure 201/35-10-04-990-801

PASSENGER - DESCRIPTION AND OPERATION

1. General

A. The passenger oxygen system supplies emergency oxygen to the passengers and cabin attendants in the event of loss of cabin pressure. The system consists of oxygen generating and dispensing units, and the associated electrical control circuitry. The oxygen generating and dispensing units are located in the passenger service units, cabin attendant stations, and lavatories in overhead washstand compartments. A generating and dispensing unit includes an oxygen generator, oxygen mask(s) with reservoir bag(s), and hoses to convey oxygen from the generator to the mask(s). The electrical control circuitry includes an aneroid switch, the oxygen eject relay, a CABIN OXYGEN ON annunciator display, located in the overhead switch panel, an oxygen mask eject switch, and an individual door latching mechanism located in each oxygen module.

2. Description

A. Chemical Oxygen Generator

(Figure 1)

(1) The oxygen generator stores oxygen in a chemical core until reaction is initiated. Upon initiation, the generator supplies pure oxygen to the mask(s) for a specific period of time. The oxygen generator consists of a sodium chlorate ($NaCl0_3$) core, insulating material, filter container, mounting provisions, primer, flow initiating mechanism/expended indicator, relief valve, and outlets for oxygen mask interconnecting hoses. A lanyard forms a mechanical linkage between the flow initiating mechanism (firing pin) and the oxygen mask.

(2) On initiating the oxygen generator, the firing pin strikes the primer, which fires into and ignites the enriched starting cone of the sodium chlorate core. As the core decomposes pure oxygen is generated and forced through the filter and into the outlet(s). The oxygen is then conveyed through interconnecting hose(s) to the oxygen mask(s). When the firing pin is in the fired position, the generator is considered expended and shall be replaced with a new generator.

WARNING: MAKE SURE YOU OBEY ALL APPLICABLE REGULATORY REQUIREMENTS FOR THE TRANSPORT OF OXYGEN GENERATORS. IF THE SERVICE LIFE OF THE GENERATORS HAS EXPIRED, YOU MUST FIRE THE GENERATORS AND MAKE SURE THE OXIDIZER CORE IS EMPTY. THIS MUST BE DONE BEFORE YOU PREPARE THE GENERATORS FOR TRANSPORT. IF THE GENERATORS ARE NOT FIRED AND EMPTY, THEY CAN ACCIDENTALLY FIRE DURING TRANSPORT AND CAUSE HEAT AND IGNITION. THIS CAN CAUSE DEATH OR INJURY TO PERSONS AND DAMAGE TO THE AIRCRAFT.

(3) A yellow plastic safety - shipping cap is provided for the oxygen generator firing pin mechanism. This cap must be installed over the firing mechanism at all times until the generator is installed into the aircraft. The cap must then be reinstalled over the firing mechanism whenever a generator is removed from the aircraft.

B. Oxygen Mask

(1) Except for oxygen masks located in the forward attendants overhead positions where the masks are loose inside the module door, the oxygen masks are mounted inside each oxygen module. The masks convey oxygen to the passenger and minimize oxygen waste. The mask supplies a mixture of pure oxygen and ambient air. It is automatically presented to the passenger in the event of loss of cabin pressure and must be manually removed. The mask consists of a face piece and a reservoir bag. A flexible hose connects the reservoir bag to the oxygen outlet. A lanyard, connected on one end to the firing mechanism, forms a mechanical linkage to a spring snap hook on the mask. Inhalation-exhalation valving is incorporated in the mask. (Figure 2)(Figure 3)

(2) As the user inhales, the inhalation valve opens allowing the user to breathe only reservoir bag contents until the bag is empty. When the bag is empty, an ambient air valve opens to supply supplementary air for the remainder of the inhalation cycle. As the user exhales, used gases are expelled through the exhalation valve.

C. Aneroid Switch

(1) The aneroid switch which senses cabin pressure, energizes the oxygen mask eject relay in the event of loss of cabin pressure. The switch is a normally open, vacuum aneroid, and operates to the closed position at a cabin altitude of 14,150 ±350 ft (4313 ±107 m).

D. Oxygen Mask Eject Relay

(1) The oxygen mask eject relay applies opening power to the oxygen module door latching mechanisms circuit upon command from the aneroid switch. The relay is a 28-vdc, normally open relay, incorporating a timing device that times out 5 seconds after the relay has closed and removes power from the oxygen module door latching mechanisms.

E. Cabin Oxygen On Annunciator

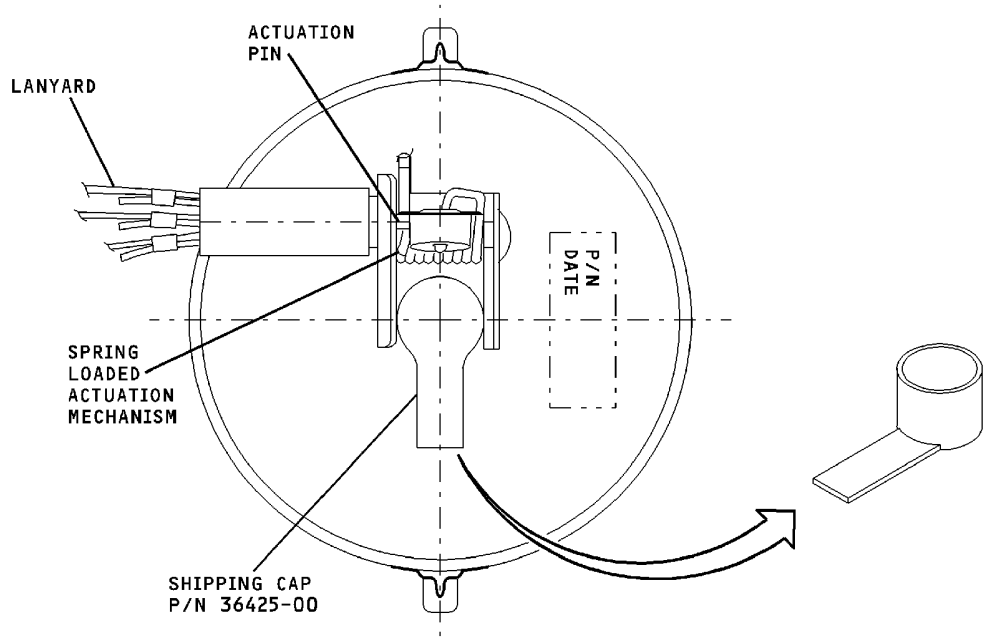
(1) The CABIN OXYGEN ON annunciator is a light display to inform the pilot and first officer that oxygen has been presented to the passengers and attendants.

F. Oxygen Mask Eject Switch

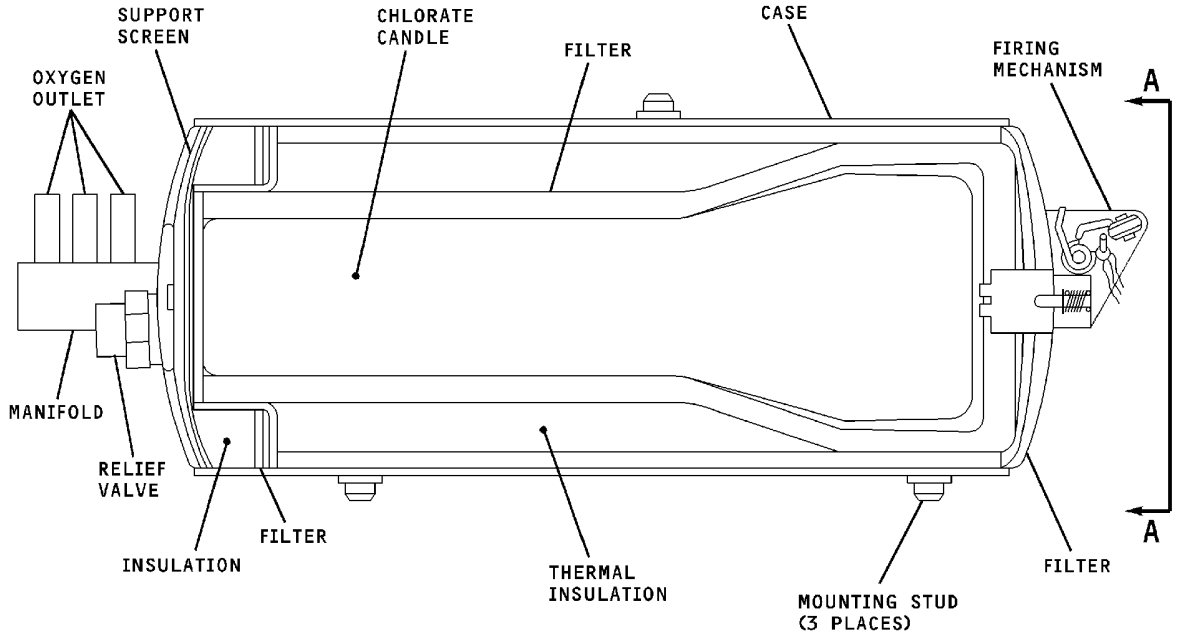
(1) The oxygen mask eject switch is a manually operated 115-vac switch with normally open contacts. The eject switch serves as a backup or override for the aneroid switch and the oxygen mask eject relay. In the event of loss of cabin pressure, the oxygen mask eject circuits are energized through interaction of the aneroid switch and the oxygen eject relay. Should either the switch or the relay fail to operate, the oxygen mask eject switch provides a bypass circuit to the oxygen module door latching mechanisms circuit.

G. Oxygen Module Door and Latching Mechanism

(1) The oxygen module door seals off the oxygen from passenger access until an eject oxygen command is received by the latching mechanisms. The latching mechanisms are 115-vac operated and, when energized, release the oxygen module door latches. The door latch also provides manual accessibility to the oxygen equipment for inspection and maintenance purposes.



VIEW A-A



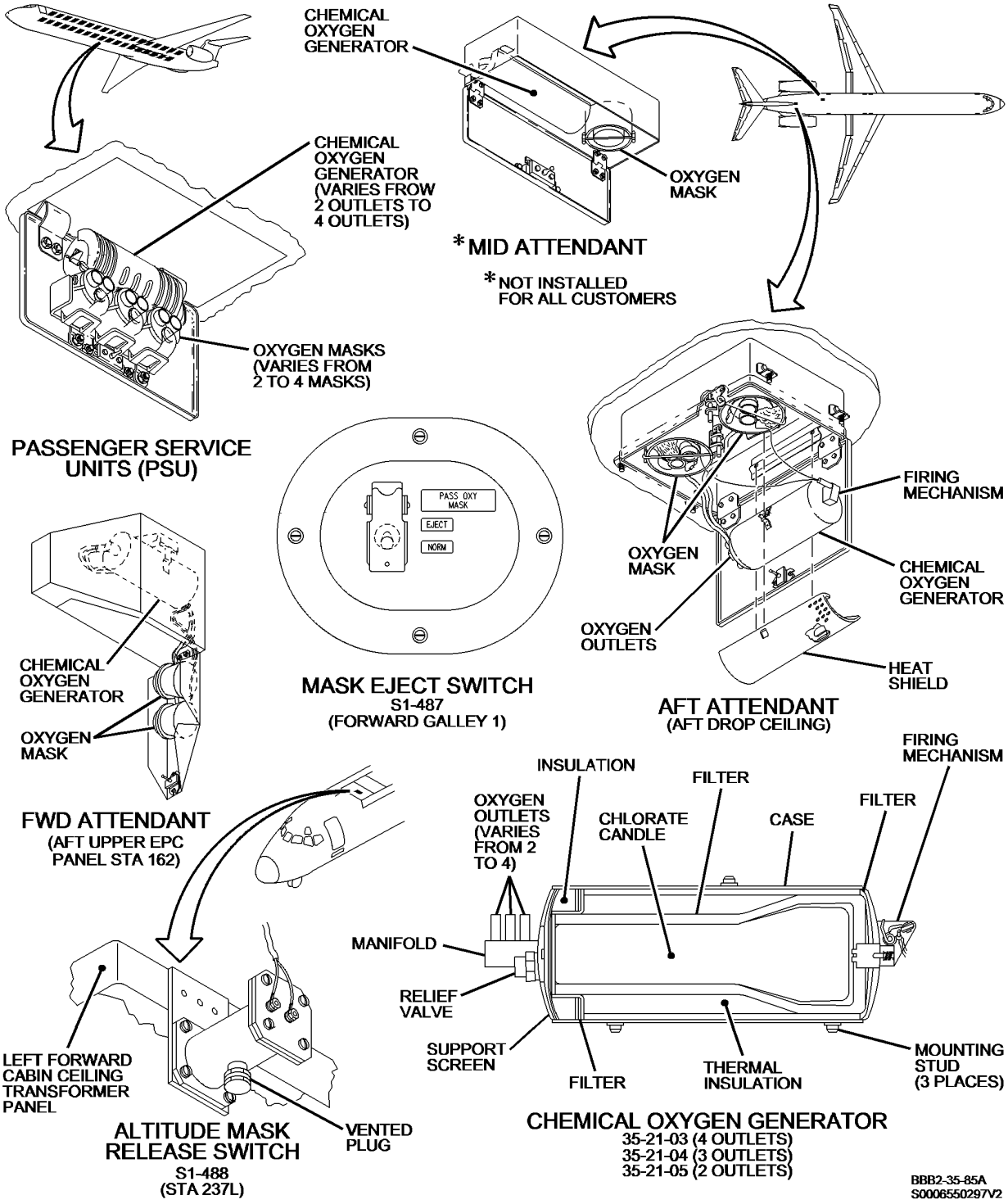
Oxygen Generator Assembly and Cut-Away
Figure 1/35-20-00-990-801

3. **Operation**

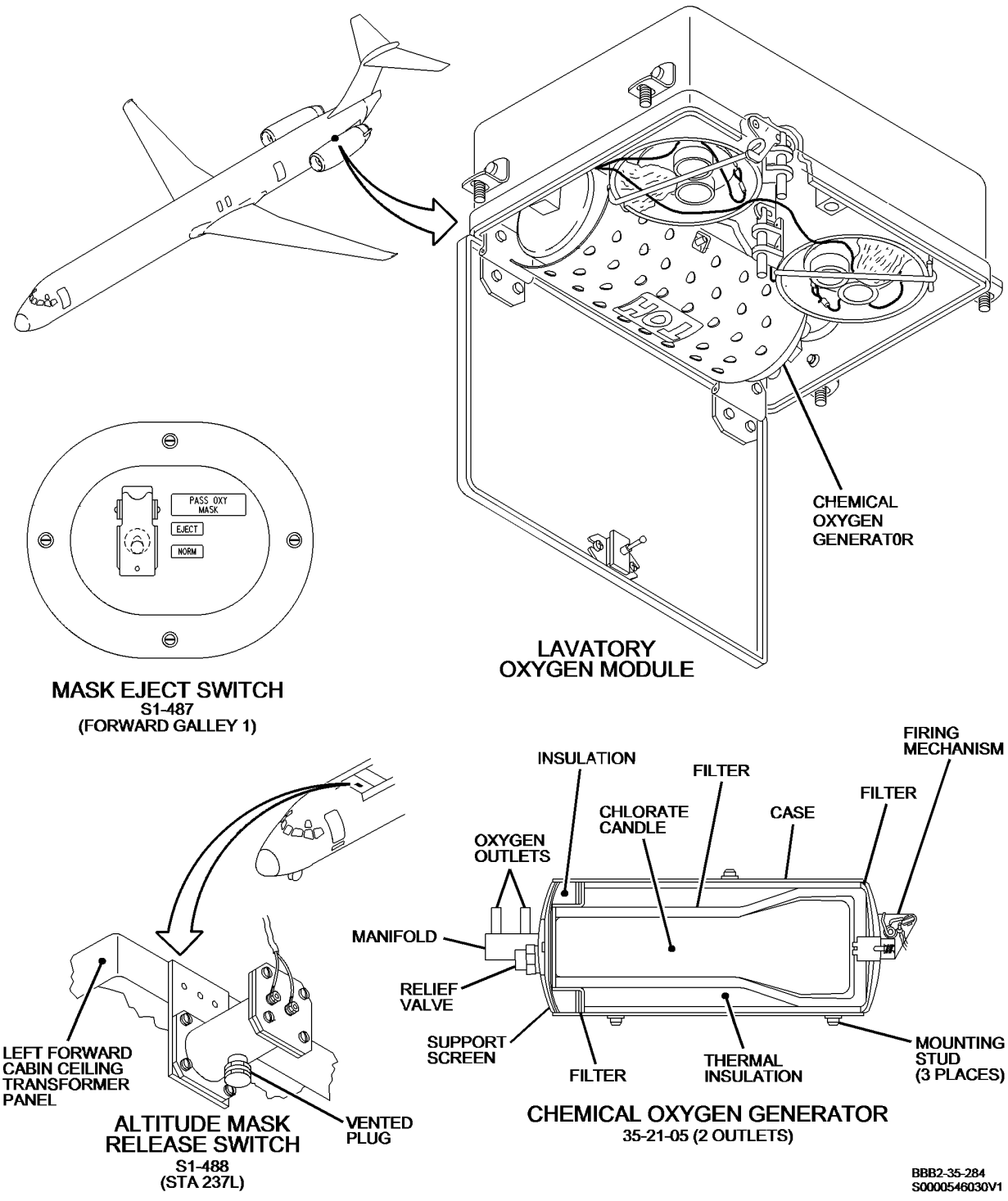
A. The passenger oxygen masks are deployed when electrical power is applied to the oxygen module door latching mechanism. Electrical power is applied by two means; automatic closure of the aneroid switch at a cabin altitude of 14,150 ±350 ft (4313 ±107 m) or by momentarily placing the oxygen mask eject switch to the eject position. If the oxygen module doors fail to open automatically, the eject switch is cycled to the eject position as back-up to the automatic system.

CAUTION: HOLDING THE EJECT SWITCH IN THE EJECT POSITION FOR MORE THAN 5 SECONDS COULD RESULT IN SERIOUS DAMAGE TO THE OXYGEN MODULE DOOR LATCHING MECHANISMS.

B. As the mask is removed from its mount and pulled towards the user, a force is exerted on the lanyard that initiates oxygen flow. Pure oxygen flows to the oxygen mask reservoir bag within seconds of such initiation. The oxygen flow rate gradually declines as scheduled to meet flow requirements for descent. As the flow declines, the oxygen mask dilutes the pure oxygen with cabin environmental atmosphere.



Passenger and Attendant Oxygen System
Figure 2/35-20-00-990-821



Lavatory Oxygen System
Figure 3/35-20-00-990-839-001

PASSENGER OXYGEN SYSTEM - TROUBLE SHOOTING

1. Equipment and Materials

NOTE: Equivalent substitutes may be used instead of the following listed items:

NOTE: Some materials in the Equipment and Materials List may not be permitted to be used in your location. Persons in each location must make sure they are permitted to use these materials. All persons must obey all applicable federal, state, local, and provincial regulations for their location.

Table 101

Name and Number	Manufacturer
Passenger oxygen wiring tester (3510-D09-1205)	Aero Info Inc.

2. Trouble Shooting

Table 102

Possible Causes		Isolation Procedures	Correction
A.	MASK CONTAINER DOORS DO NOT OPEN WITH OXYGEN MASK EJECT SWITCH		
(1)	Circuit breaker open	Check upper and lower EPC circuit breaker panels.	Close circuit breakers
(2)	Defective switch	Test switch	Replace switch
(3)	Mask container door latch out of adjustment or inoperative	Check door for alignment and operation	Adjust or replace latch
B.	MASK CONTAINER DOORS OPEN AT OR BEFORE 14,500 ft (4.420 km) ALTITUDE		
(1)	Defective aneroid	Test aneroid	Replace aneroid
C.	ONE OR MORE MASK CONTAINER DOORS REMAIN CLOSED WHEN SYSTEM IS ACTIVATED		
(1)	Mask container door latch out of adjustment	Check door latch for alignment	Adjust or replace latch
(2)	Defective or disconnected door latch wiring	Test wiring	Repair or connect wiring

3. Adjustment/Test Passenger Oxygen System

A. Test System

WARNING: TAG AND USE SAFETY CLIPS TO SAFETY THE CIRCUIT BREAKERS. IF THE CIRCUIT BREAKERS ARE NOT OPENED, TAGGED, AND SAFETIED, INJURY TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(1) Open these circuit breakers and install safety tags:

UPPER EPC, L AC BUS

Row	Col	Number	Name
WJE 417, 419, 421, 423, 865, 869, 871, 872			
K	31	B1-870	PASSENGER OXYGEN RELEASE
WJE 401-412, 414-416, 418, 420, 422, 424-427, 429, 861-864, 866, 868, 873-881, 883, 884, 886, 887, 891-893			
K	34	B1-870	PASSENGER OXYGEN RELEASE

WJE 401-412, 414-416, 418, 420, 422, 424-427, 429, 861-864, 866, 868, 873-881, 883, 884, 886, 887, 891-893 (Continued)

UPPER EPC, R AC BUS

Row	Col	Number	Name
WJE 417, 419, 421, 423, 865, 869, 871, 872			
L	31	B1-871	ALTERNATE PASSENGER OXYGEN RELEASE
WJE 401-412, 414-416, 418, 420, 422, 424-427, 429, 861-864, 866, 868, 873-881, 883, 884, 886, 887, 891-893			
L	34	B1-871	ALTERNATE PASSENGER OXYGEN RELEASE

WJE ALL

(2) Connect passenger oxygen wiring tester to passenger oxygen test receptacle (R5-473) located in flight compartment below briefcase stowage on left console.

(3) Remove the safety tags and close these circuit breakers:

UPPER EPC, L AC BUS

Row	Col	Number	Name
WJE 417, 419, 421, 423, 865, 869, 871, 872			
K	31	B1-870	PASSENGER OXYGEN RELEASE
WJE 401-412, 414-416, 418, 420, 422, 424-427, 429, 861-864, 866, 868, 873-881, 883, 884, 886, 887, 891-893			
K	34	B1-870	PASSENGER OXYGEN RELEASE

WJE ALL

(4) Rotate switch on tester to LEFT RELAY position. LEFT SIDE CONTINUITY OK light should come on.

(5) Rotate switch on tester to LEFT MANUAL position. LEFT SIDE CONTINUITY OK light should come on.

NOTE: If light does not come on, check for open circuit. If circuit breaker pops to open at any time, check for short.

(6) Rotate switch on tester to OFF position.

(7) Remove the safety tags and close these circuit breakers:

UPPER EPC, R AC BUS

Row	Col	Number	Name
WJE 417, 419, 421, 423, 865, 869, 871, 872			
L	31	B1-871	ALTERNATE PASSENGER OXYGEN RELEASE
WJE 401-412, 414-416, 418, 420, 422, 424-427, 429, 861-864, 866, 868, 873-881, 883, 884, 886, 887, 891-893			
L	34	B1-871	ALTERNATE PASSENGER OXYGEN RELEASE

WJE ALL

WARNING: TAG AND USE SAFETY CLIPS TO SAFETY THE CIRCUIT BREAKERS. IF THE CIRCUIT BREAKERS ARE NOT OPENED, TAGGED, AND SAFETIED, INJURY TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(8) Open these circuit breakers and install safety tags:

UPPER EPC, L AC BUS

Row	Col	Number	Name
WJE 417, 419, 421, 423, 865, 869, 871, 872			
K	31	B1-870	PASSENGER OXYGEN RELEASE
WJE 401-412, 414-416, 418, 420, 422, 424-427, 429, 861-864, 866, 868, 873-881, 883, 884, 886, 887, 891-893			
K	34	B1-870	PASSENGER OXYGEN RELEASE

WJE ALL

(9) Rotate switch on tester to RIGHT RELAY position. RIGHT SIDE CONTINUITY OK light should come on.

(10) Rotate switch on tester to RIGHT MANUAL position. RIGHT SIDE CONTINUITY OK light should come on.

NOTE: If light does not come on, check for open circuit. If circuit breaker pops to open at any time, check for short.

(11) Rotate switch on tester to OFF position.

WARNING: TAG AND USE SAFETY CLIPS TO SAFETY THE CIRCUIT BREAKERS. IF THE CIRCUIT BREAKERS ARE NOT OPENED, TAGGED, AND SAFETIED, INJURY TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(12) Open these circuit breakers and install safety tags:

UPPER EPC, R AC BUS

Row	Col	Number	Name
WJE 417, 419, 421, 423, 865, 869, 871, 872			
L	31	B1-871	ALTERNATE PASSENGER OXYGEN RELEASE
WJE 401-412, 414-416, 418, 420, 422, 424-427, 429, 861-864, 866, 868, 873-881, 883, 884, 886, 887, 891-893			
L	34	B1-871	ALTERNATE PASSENGER OXYGEN RELEASE

WJE ALL

(13) Disconnect passenger oxygen wiring tester from passenger oxygen test receptacle.

(14) Remove the safety tags and close these circuit breakers:

UPPER EPC, L AC BUS

Row	Col	Number	Name
WJE 417, 419, 421, 423, 865, 869, 871, 872			
K	31	B1-870	PASSENGER OXYGEN RELEASE
WJE 401-412, 414-416, 418, 420, 422, 424-427, 429, 861-864, 866, 868, 873-881, 883, 884, 886, 887, 891-893			
K	34	B1-870	PASSENGER OXYGEN RELEASE

WJE 401-412, 414-416, 418, 420, 422, 424-427, 429, 861-864, 866, 868, 873-881, 883, 884, 886, 887, 891-893 (Continued)

UPPER EPC, R AC BUS

Row	Col	Number	Name
WJE 417, 419, 421, 423, 865, 869, 871, 872			
L	31	B1-871	ALTERNATE PASSENGER OXYGEN RELEASE
WJE 401-412, 414-416, 418, 420, 422, 424-427, 429, 861-864, 866, 868, 873-881, 883, 884, 886, 887, 891-893			
L	34	B1-871	ALTERNATE PASSENGER OXYGEN RELEASE

PASSENGER - MAINTENANCE PRACTICES

1. General

A. This maintenance practice provides adjustment/test and check instructions for the passenger oxygen system.

B. Access to oxygen modules located in passenger overhead positions, cabin attendant stations, and lavatories, is gained by inserting a small round pin shaped object through a hole in the module door and pushing the latch release.

2. Equipment and Materials

NOTE: Equivalent substitutes may be used instead of the following listed items:

NOTE: It is possible that some materials in the Equipment and Materials List cannot be used for some or all of their necessary applications. Before you use the materials, make sure the types, quantities, and applications of the materials necessary are legally permitted in your location. All persons must obey all applicable federal, state, local, and provincial laws and regulations when it is necessary to work with these materials.

Table 201

Name and Number	Manufacturer
Air data tester model No. 127-1M	Milhard Engineering
ZIP D-5440 Fluorocarbon dry lubricant DMS 1762 Type 7E	ZIP Industrial Products Co.
or	
CHR Rulon spray dry lubricant	Connecticut Hard Rubber Co.
Handwipe cleaner DPM 6380	
Cap, Oxygen Generator Firing Mechanism - Safety (P/N 36425-00)	Scott Aviation Div. of Figgie Intnl., Inc. 225 Erie St. Lancaster, NY 14806-9502

3. Functional Test, Primary Passenger Oxygen System Control

NOTE: Before any functional test is performed, personnel should read and thoroughly understand procedures in Paragraph 5. and Paragraph 6..

A. Aneroid Check Vacuum Source

(1) Remove vented plug and connect air data tester and altimeter test set to pressure port of aneroid switch.

(2) Make sure that these circuit breakers are closed:

LOWER EPC, DC AIR CONDITIONING & MISCELLANEOUS

Row	Col	Number	Name
U	30	B1-421	CABIN OXYGEN ADVISORY

LOWER EPC, MISCELLANEOUS LEFT DC BUS

Row	Col	Number	Name
P	32	B1-868	PASSENGER OXYGEN CONTROL

UPPER EPC, L AC BUS

Row	Col	Number	Name
WJE 417, 419, 421, 423, 865, 869, 871, 872			
K	31	B1-870	PASSENGER OXYGEN RELEASE
WJE 401-412, 414-416, 418, 420, 422, 424-427, 429, 861-864, 866, 868, 873-881, 883, 884, 886, 887, 891-893			
K	34	B1-870	PASSENGER OXYGEN RELEASE

WJE ALL

NOTE: If CABIN OXYGEN ADVISORY circuit breaker is closed, open circuit breaker, and after 5 seconds close circuit breaker.

WARNING: TAG AND USE SAFETY CLIPS TO SAFETY THE CIRCUIT BREAKERS. IF THE CIRCUIT BREAKERS ARE NOT OPENED, TAGGED, AND SAFETIED, INJURY TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(3) Make sure that these circuit breakers are open and have safety tags:

LOWER EPC, MISCELLANEOUS RIGHT DC BUS

Row	Col	Number	Name
R	32	B1-869	PASSENGER OXYGEN CONTROL ALTERNATE

UPPER EPC, R AC BUS

Row	Col	Number	Name
WJE 417, 419, 421, 423, 865, 869, 871, 872			
L	31	B1-871	ALTERNATE PASSENGER OXYGEN RELEASE
WJE 401-412, 414-416, 418, 420, 422, 424-427, 429, 861-864, 866, 868, 873-881, 883, 884, 886, 887, 891-893			
L	34	B1-871	ALTERNATE PASSENGER OXYGEN RELEASE

WJE ALL

(4) Make certain that all passenger, attendant and lavatory oxygen compartment doors are closed.

(5) Using air data tester, slowly reduce aneroid pressure to 13,600 ft (4.145 km) altitude. All oxygen doors should remain closed.

CAUTION: IF RETEST IS REQUIRED, WAIT AT LEAST 10 MINUTES FOR LATCHING SOLENOIDS TO COOL.

(6) Continue to slowly reduce aneroid pressure to14,150 ±350 ft (4.313 ±0.107 km) altitude. All doors should open before altitude is reached, sidewall lights should illuminate and CABIN OXYGEN ON annunciator should be illuminated.

(7) Slowly release vacuum on aneroid switch.

(8) Disconnect air data tester and altimeter test set from aneroid switch.

(9) Install vented plug in aneroid switch.

NOTE: Make certain that aneroid plug has vent hole and that hole is clear.

(10) Close all oxygen doors.

(11) Open lower sidewall lighting control circuit breaker for 5 seconds and then close to reset circuit. Check that all sidewall lights go off.

B. Oxygen Mask Eject Switch Check

(1) Make certain that all passenger, attendant and lavatory oxygen compartment doors are closed.

(2) Make sure that these circuit breakers are closed:

LOWER EPC, DC AIR CONDITIONING & MISCELLANEOUS

Row	Col	Number	Name
U	30	B1-421	CABIN OXYGEN ADVISORY

LOWER EPC, MISCELLANEOUS LEFT DC BUS

Row	Col	Number	Name
P	32	B1-868	PASSENGER OXYGEN CONTROL

UPPER EPC, L AC BUS

Row	Col	Number	Name
WJE 417, 419, 421, 423, 865, 869, 871, 872			
K	31	B1-870	PASSENGER OXYGEN RELEASE
WJE 401-412, 414-416, 418, 420, 422, 424-427, 429, 861-864, 866, 868, 873-881, 883, 884, 886, 887, 891-893			
K	34	B1-870	PASSENGER OXYGEN RELEASE

WJE ALL

NOTE: If CABIN OXYGEN ADVISORY circuit breaker is closed, open circuit breaker, and after 5 seconds close circuit breaker.

WARNING: TAG AND USE SAFETY CLIPS TO SAFETY THE CIRCUIT BREAKERS. IF THE CIRCUIT BREAKERS ARE NOT OPENED, TAGGED, AND SAFETIED, INJURY TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(3) Make sure that these circuit breakers are open and have safety tags:

LOWER EPC, MISCELLANEOUS RIGHT DC BUS

Row	Col	Number	Name
R	32	B1-869	PASSENGER OXYGEN CONTROL ALTERNATE

UPPER EPC, R AC BUS

Row	Col	Number	Name
WJE 417, 419, 421, 423, 865, 869, 871, 872			
L	31	B1-871	ALTERNATE PASSENGER OXYGEN RELEASE
WJE 401-412, 414-416, 418, 420, 422, 424-427, 429, 861-864, 866, 868, 873-881, 883, 884, 886, 887, 891-893			
L	34	B1-871	ALTERNATE PASSENGER OXYGEN RELEASE

WJE ALL

CAUTION: DO NOT ACTUATE OXYGEN MASK EJECT SWITCH FOR MORE THAN 5 SECONDS. IF RETEST IS REQUIRED, WAIT AT LEAST 10 MINUTES FOR LATCHING SOLENOIDS TO COOL.

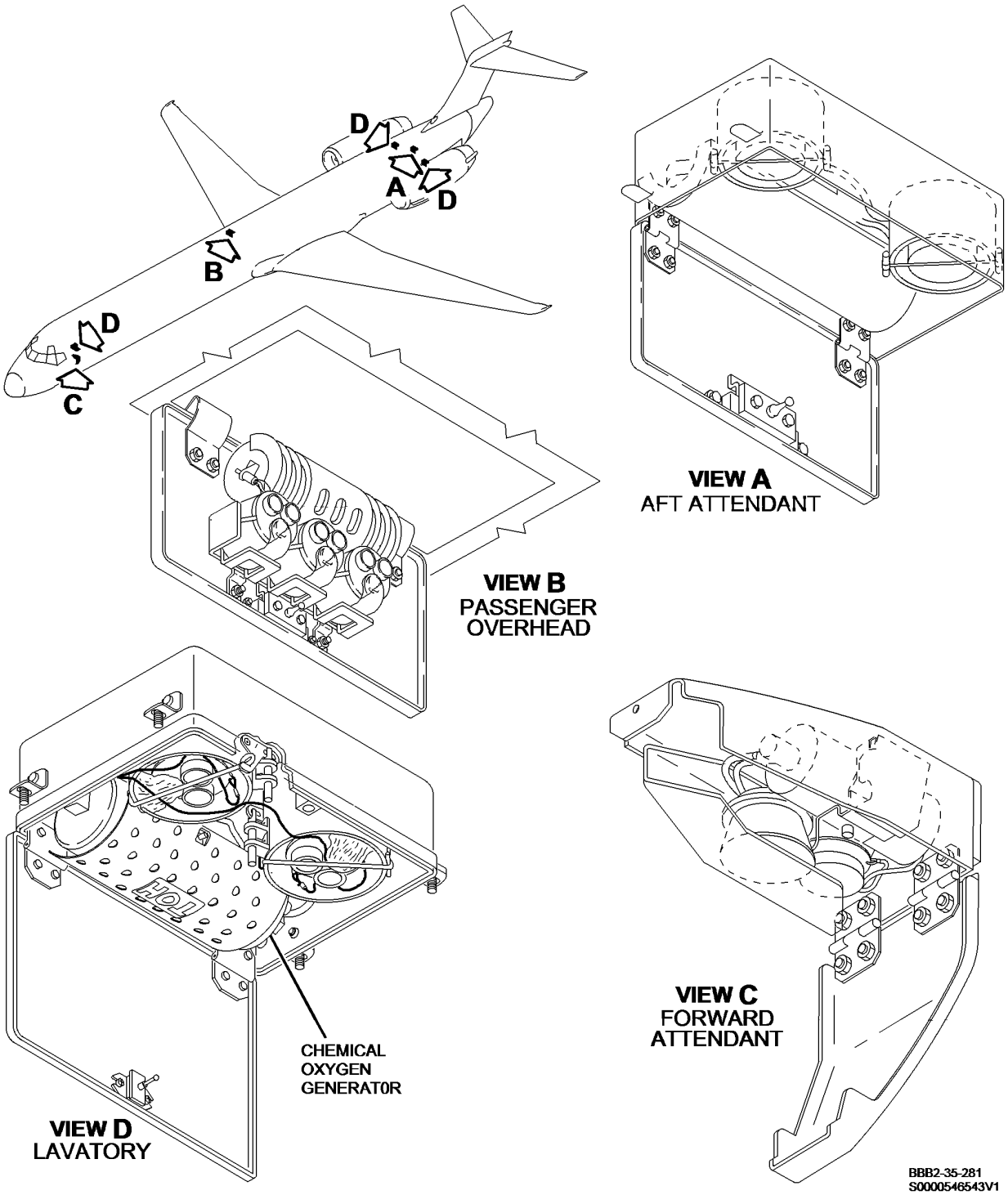
(4) Place oxygen mask eject switch in MASK EJECT position for approximately 1 second, then release. All passenger, attendant, and lavatory oxygen compartment doors should open and CABIN OXYGEN ON annunciator should be illuminated.

WARNING: OXYGEN GENERATORS CONTAIN LIVE IGNITION TRAINS, AND WHEN IGNITED, GENERATE HOUSING TEMPERATURES UP TO 500°F (260.0°C). EXERCISE EXTREME CAUTION TO PREVENT INADVERTENT REMOVAL OF FIRING PIN. IF GENERATOR SHOULD BECOME ACTIVATED, IMMEDIATELY PLACE ON NONCOMBUSTIBLE SURFACE.

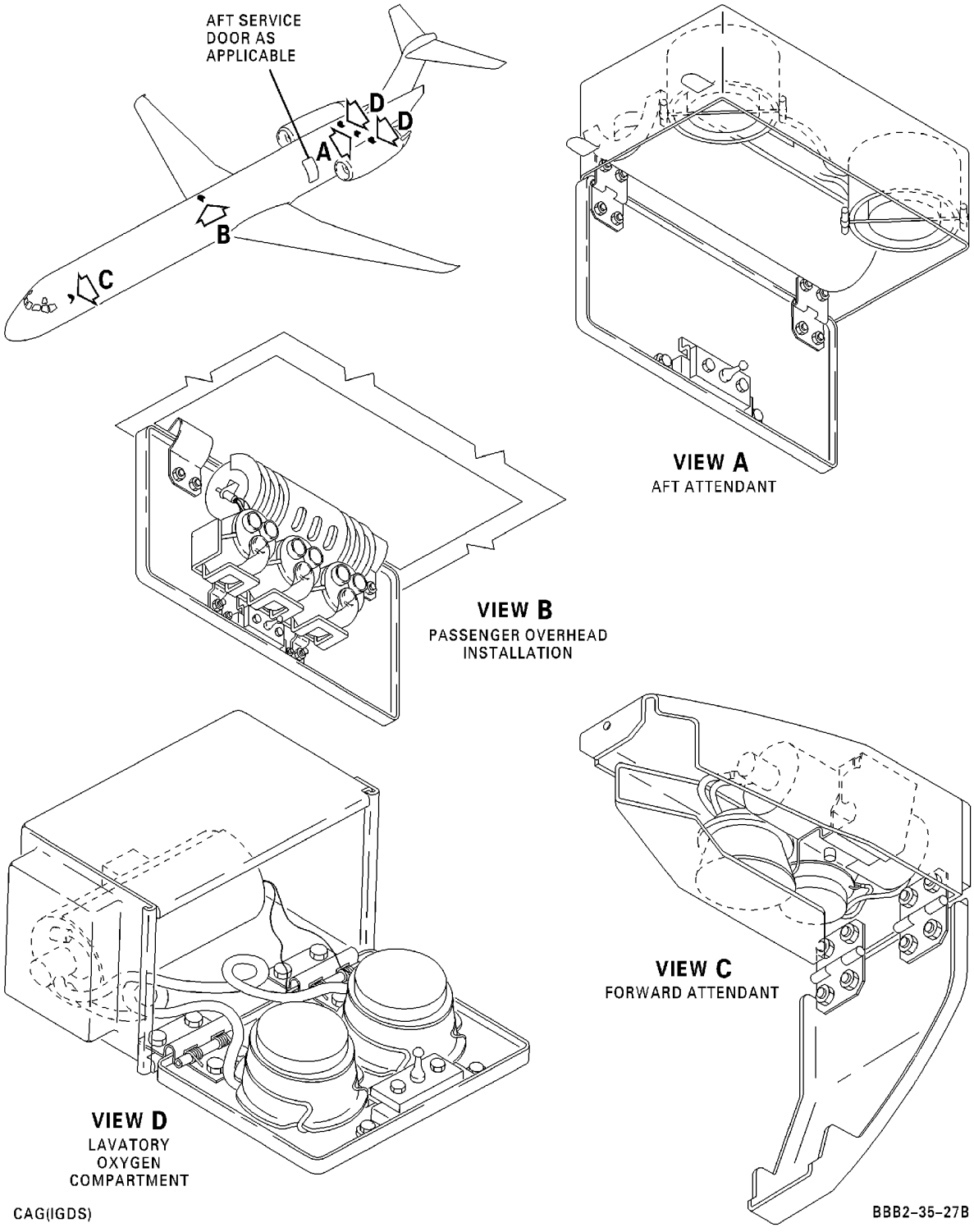
(5) Make certain forward cabin attendant oxygen compartment door opens freely to approximately 90 degree angle with minimum 0.030-inch (0.762 mm) clearance between oxygen box door and all adjacent structure and mask deploys. If minimum clearance is not obtained install washers behind forward cabin attendant oxygen box to provide clearance with all adjacent structure. (PAGEBLOCK 23-00-00/201)

(6) Close all oxygen doors.

(7) Open CABIN OXYGEN ADVISORY circuit breaker for 5 seconds and then close to reset circuit.



Passenger and Attendant Oxygen Modules -- Location
Figure 201/35-20-00-990-825



Passenger and Attendant Oxygen Modules -- Location
Figure 202/35-20-00-990-827

4. **Functional Test Alternate Passenger Oxygen System Control**

NOTE: Before any functional test is performed, personnel should read and thoroughly understand procedures in Paragraph 5. and Paragraph 6..

A. Aneroid Check Vacuum Source

(1) Remove vented plug and connect air data tester and altimeter test set to pressure port of aneroid switch.

(2) Make sure that these circuit breakers are closed:

LOWER EPC, DC AIR CONDITIONING & MISCELLANEOUS

Row	Col	Number	Name
U	30	B1-421	CABIN OXYGEN ADVISORY

LOWER EPC, MISCELLANEOUS RIGHT DC BUS

Row	Col	Number	Name
R	32	B1-869	PASSENGER OXYGEN CONTROL ALTERNATE

UPPER EPC, R AC BUS

Row	Col	Number	Name
WJE 417, 419, 421, 423, 865, 869, 871, 872			
L	31	B1-871	ALTERNATE PASSENGER OXYGEN RELEASE
WJE 401-412, 414-416, 418, 420, 422, 424-427, 429, 861-864, 866, 868, 873-881, 883, 884, 886, 887, 891-893			
L	34	B1-871	ALTERNATE PASSENGER OXYGEN RELEASE

WJE ALL

NOTE: If CABIN OXYGEN ADVISORY circuit breaker is closed, open circuit breaker, and after 5 seconds close circuit breaker.

WARNING: TAG AND USE SAFETY CLIPS TO SAFETY THE CIRCUIT BREAKERS. IF THE CIRCUIT BREAKERS ARE NOT OPENED, TAGGED, AND SAFETIED, INJURY TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(3) Make sure that these circuit breakers are open and have safety tags:

LOWER EPC, MISCELLANEOUS LEFT DC BUS

Row	Col	Number	Name
P	32	B1-868	PASSENGER OXYGEN CONTROL

UPPER EPC, L AC BUS

Row	Col	Number	Name
WJE 417, 419, 421, 423, 865, 869, 871, 872			
K	31	B1-870	PASSENGER OXYGEN RELEASE
WJE 401-412, 414-416, 418, 420, 422, 424-427, 429, 861-864, 866, 868, 873-881, 883, 884, 886, 887, 891-893			
K	34	B1-870	PASSENGER OXYGEN RELEASE

WJE ALL

(4) Repeat Paragraph 3.A. for the Passenger Oxygen System Alternate Control System Aneroid Check Vacuum Source.

B. Oxygen Mask Eject Switch Check

(1) Make certain that all passenger, attendant and lavatory oxygen compartment doors are closed.

(2) Make sure that these circuit breakers are closed:

LOWER EPC, DC AIR CONDITIONING & MISCELLANEOUS

Row	Col	Number	Name
U	30	B1-421	CABIN OXYGEN ADVISORY

LOWER EPC, MISCELLANEOUS RIGHT DC BUS

Row	Col	Number	Name
R	32	B1-869	PASSENGER OXYGEN CONTROL ALTERNATE

UPPER EPC, R AC BUS

Row	Col	Number	Name
WJE 417, 419, 421, 423, 865, 869, 871, 872			
L	31	B1-871	ALTERNATE PASSENGER OXYGEN RELEASE
WJE 401-412, 414-416, 418, 420, 422, 424-427, 429, 861-864, 866, 868, 873-881, 883, 884, 886, 887, 891-893			
L	34	B1-871	ALTERNATE PASSENGER OXYGEN RELEASE

WJE ALL

NOTE: If CABIN OXYGEN ADVISORY circuit breaker is closed, open circuit breaker, and after 5 seconds close circuit breaker.

WARNING: TAG AND USE SAFETY CLIPS TO SAFETY THE CIRCUIT BREAKERS. IF THE CIRCUIT BREAKERS ARE NOT OPENED, TAGGED, AND SAFETIED, INJURY TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(3) Make sure that these circuit breakers are open and have safety tags:

LOWER EPC, MISCELLANEOUS LEFT DC BUS

Row	Col	Number	Name
P	32	B1-868	PASSENGER OXYGEN CONTROL

UPPER EPC, L AC BUS

Row	Col	Number	Name
WJE 417, 419, 421, 423, 865, 869, 871, 872			
K	31	B1-870	PASSENGER OXYGEN RELEASE
WJE 401-412, 414-416, 418, 420, 422, 424-427, 429, 861-864, 866, 868, 873-881, 883, 884, 886, 887, 891-893			
K	34	B1-870	PASSENGER OXYGEN RELEASE

WJE ALL

CAUTION: DO NOT ACTUATE OXYGEN MASK EJECT SWITCH FOR MORE THAN 5 SECONDS. IF RETEST IS REQUIRED, WAIT AT LEAST 10 MINUTES FOR LATCHING SOLENOIDS TO COOL.

(4) Repeat Paragraph 3.B. for the Passenger Oxygen System Alternate Control System Oxygen Mask Eject Switch Check.

5. Check Oxygen Compartments (Without Insert Unit)

NOTE: These procedures provide all pertinent information necessary to open, check, adjust, reset, and close attendant and lavatory oxygen compartments.

A. Check Oxygen Compartments

(1) Open oxygen compartment door slowly, making certain that firing pin lanyards are free and will not pull firing pins on live generator. (Paragraph 1.)

(2) If there is evidence of binding or excessive friction in door hinge area, lubricate hinge using approved lubricant.

NOTE: Repeated use of cleaning solutions or detergents in the area of door frame can form a residue which may cause the door to stick.

WARNING: HANDWIPE CLEANER IS AN AGENT THAT IS FLAMMABLE, A SENSITIZER, AN ASPHYXIANT, AND AN IRRITANT. MAKE SURE ALL PERSONS OBEY THE PRECAUTIONS WHEN HANDWIPE CLEANER IS USED.

- DO NOT USE IN AREAS WHERE THERE IS HIGH HEAT, SPARKS, OR FLAMES.
- USE IN AN AREA OPEN TO THE AIR.
- CLOSE THE CONTAINER WHEN NOT USED.
- DO NOT GET HANDWIPE CLEANER IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES.
- DO NOT BREATHE THE GAS.

WARNING: DRY FILM LUBRICANT IS AN AGENT THAT IS FLAMMABLE, POISONOUS, AND AN IRRITANT. MAKE SURE ALL PERSONS OBEY THE PRECAUTIONS WHEN DRY FILM LUBRICANT IS USED.

- GAS/AIR MIXTURES MORE THAN THE LOWER EXPLOSIVE LIMIT (LEL) CAN CAUSE AN EXPLOSION IF HIGH HEAT, SPARKS, OR FLAMES SUPPLY IGNITION.
- USE IN AN AREA OPEN TO THE AIR.
- CLOSE THE CONTAINER WHEN NOT USED.
- DO NOT GET DRY FILM LUBRICANT IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES.
- DO NOT BREATHE THE GAS.

WARNING: REFER TO THE APPLICABLE MANUFACTURER'S OR SUPPLIER'S MSDS FOR:

- MORE PRECAUTIONARY DATA
- APPROVED SAFETY EQUIPMENT
- EMERGENCY MEDICAL AID.

TALK WITH THE LOCAL SAFETY DEPARTMENT OR AUTHORITIES FOR THE PROCEDURES TO DISCARD THESE HAZARDOUS AGENTS.

(3) If residue is present around area of door frame, wipe clean with cloth moistened with handwipe cleaner. After area is dry, lubricate with approved lubricant. (Paragraph 2.)

WARNING: PASSENGER OXYGEN GENERATORS CONTAIN LIVE IGNITION TRAINS, AND WHEN IGNITED, GENERATE HOUSING TEMPERATURES UP TO 500°F (260.0°C). EXERCISE EXTREME CAUTION TO PREVENT INADVERTENT REMOVAL OF FIRING PIN. IF GENERATOR SHOULD BECOME ACTIVATED, IMMEDIATELY PLACE ON NONCOMBUSTIBLE SURFACE.

WARNING: ON INSTALLATION OF OXYGEN GENERATOR, MAKE SURE SHIPPING CAP IS REMOVED FROM FIRING PIN PRIOR TO CLOSING OXYGEN MODULE DOOR.

(4) Check that firing mechanism release pin is holding firing pin in cocked position and safety cap is removed.

(5) Check that oxygen generator mounting pins are fully engaged by generator mounting brackets.

(6) Check that oxygen generator heat shield is properly installed and that clearance exists between heat shield and oxygen generator.

(7) Check that oxygen masks are secured and in center of mask mounting clips. Mask bags and head straps should be inside mask holder.

(8) Check that all mask mounting clips are installed in uniform manner. Assure that clips cannot prevent door from opening.

CAUTION: DO NOT USE ANY LUBRICANT TO EASE HOSE ONTO OUTLET. IF ANY EVIDENCE INDICATES LUBRICANT WAS PREVIOUSLY USED, WIPE OFF OUTLET AND TRIM ABOUT ONE INCH (25.4 MM) OFF HOSE.

(9) Check that oxygen supply hoses have no kinks or twists and are installed at least 1/2-inch (12.7 mm) over outlets.

(10) Check and verify that no lubricant is applied to outlets.

(11) Check for 1(±1/2)-inch (25.4(±12.7) mm) slack in firing pin lanyard, that lanyard is on outward side of oxygen supply hoses, and clear of mask mounting clips.

(12) Reset door latching mechanism by placing release lever flush with latching coil. (Figure 203)

(13) Slowly rotate door upwards.

(14) Using pencil or similar small round object, raise oxygen hoses and lanyards above heat shield away from hinge and door edge areas, close oxygen compartment door slowly, making certain that oxygen supply hoses fold without kinks or twists.

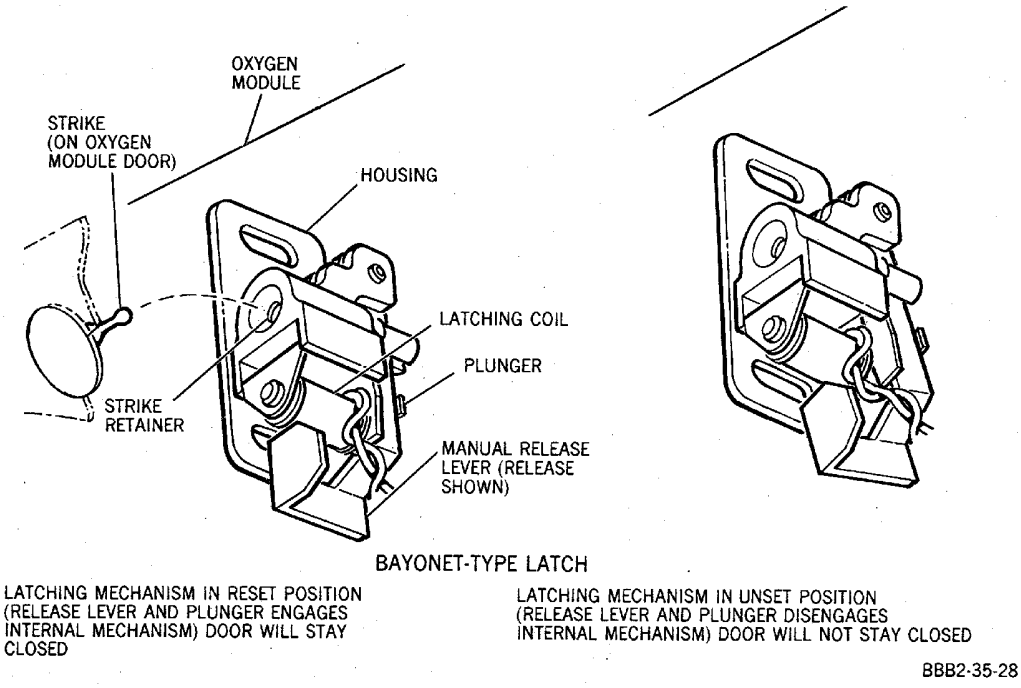
NOTE: As oxygen compartment door is closed, door will compress heat shield.

(15) Check that door closes firmly against stops without using excessive preload.

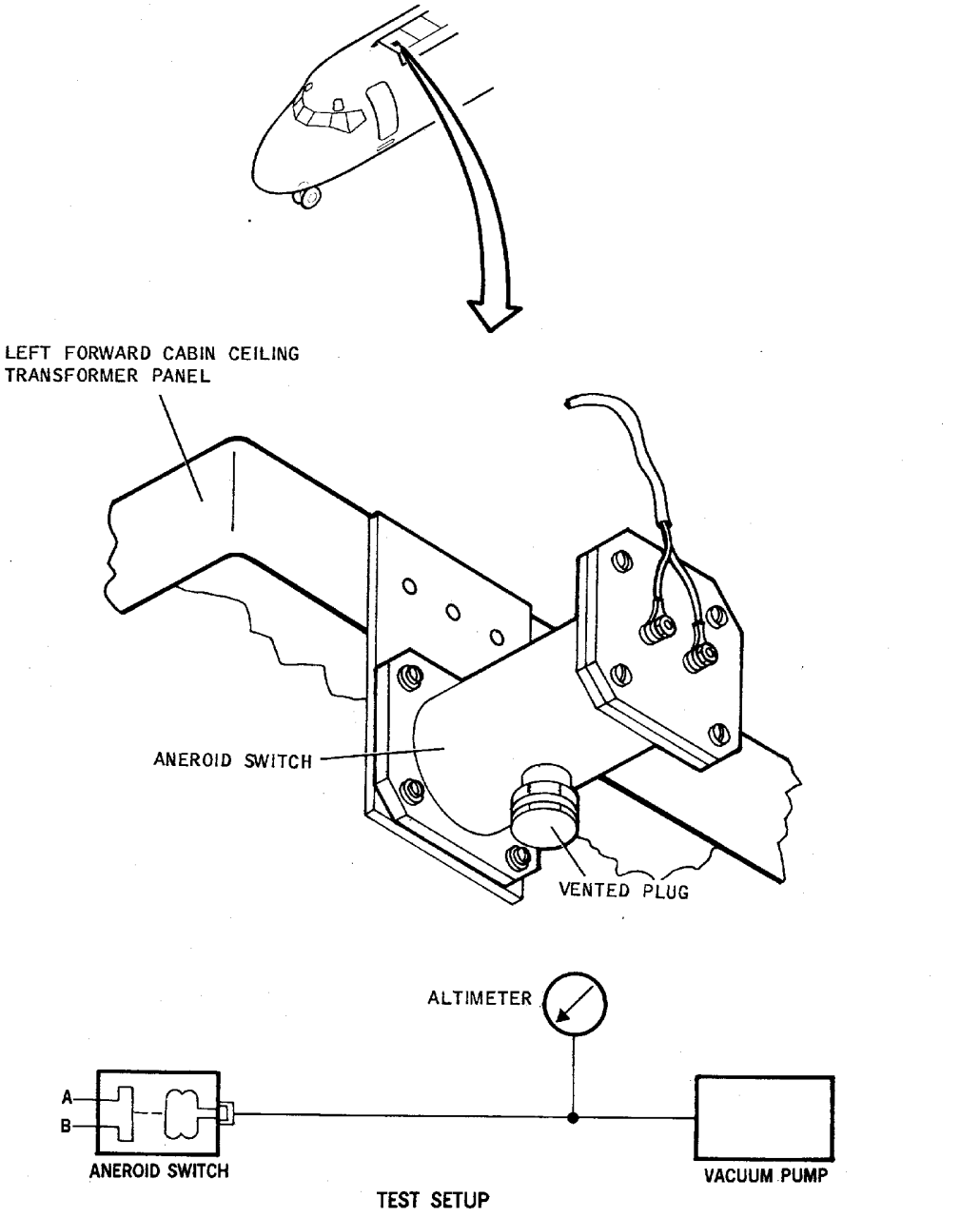
NOTE: Preload not to exceed 8 pounds (3.6 KG). If necessary adjust door stops and/or latching mechanism.

CAUTION: EXPOSED LANYARDS CAN INITIATE FIRING MECHANISM OF OXYGEN GENERATOR.

(16) Check door exterior for exposed lanyards and hoses.



Door Latching Mechanism -- Reset
Figure 203/35-20-00-990-829



Aneroid Switch -- Test Setup
Figure 204/35-20-00-990-830

6. Check Passenger Oxygen (With Insert Unit)

NOTE: These procedures provide all pertinent information necessary to open, check, adjust, reset, and close the passenger oxygen doors containing an insert unit.

A. Check Passenger Oxygen

(1) Manually open oxygen door slowly, making certain that firing pin lanyards are free and will not pull firing pins on live generator. (Paragraph 1.)

WARNING: HANDWIPE CLEANER IS AN AGENT THAT IS FLAMMABLE, A SENSITIZER, AN ASPHYXIANT, AND AN IRRITANT. MAKE SURE ALL PERSONS OBEY THE PRECAUTIONS WHEN HANDWIPE CLEANER IS USED.

- DO NOT USE IN AREAS WHERE THERE IS HIGH HEAT, SPARKS, OR FLAMES.
- USE IN AN AREA OPEN TO THE AIR.
- CLOSE THE CONTAINER WHEN NOT USED.
- DO NOT GET HANDWIPE CLEANER IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES.
- DO NOT BREATHE THE GAS.

WARNING: DRY FILM LUBRICANT IS AN AGENT THAT IS FLAMMABLE, POISONOUS, AND AN IRRITANT. MAKE SURE ALL PERSONS OBEY THE PRECAUTIONS WHEN DRY FILM LUBRICANT IS USED.

- GAS/AIR MIXTURES MORE THAN THE LOWER EXPLOSIVE LIMIT (LEL) CAN CAUSE AN EXPLOSION IF HIGH HEAT, SPARKS, OR FLAMES SUPPLY IGNITION.
- USE IN AN AREA OPEN TO THE AIR.
- CLOSE THE CONTAINER WHEN NOT USED.
- DO NOT GET DRY FILM LUBRICANT IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES.
- DO NOT BREATHE THE GAS.

WARNING: REFER TO THE APPLICABLE MANUFACTURER'S OR SUPPLIER'S MSDS FOR:

- MORE PRECAUTIONARY DATA
- APPROVED SAFETY EQUIPMENT
- EMERGENCY MEDICAL AID.

TALK WITH THE LOCAL SAFETY DEPARTMENT OR AUTHORITIES FOR THE PROCEDURES TO DISCARD THESE HAZARDOUS AGENTS.

CAUTION: CLEANING SOLUTIONS, DETERGENTS, OR LUBRICANTS MUST NOT COME IN CONTACT WITH MASKS.

(2) If there is evidence of binding or friction in door hinge area, lubricate hinge using approved lubricant.

NOTE: Repeated use of cleaning solutions or detergents in the area of the door frame can form a residue which may cause the door to stick. The door frame area should be cleaned with a cloth moistened with handwipe cleaner. After area is dry, lubricate with an approved lubricant. (Paragraph 2.)

(3) Check passenger oxygen equipment for evidence of dirt or foreign contamination. Clean area or replace complete insert unit as required. Passenger oxygen equipment should be clean prior to door closing.

WARNING: PASSENGER OXYGEN GENERATORS CONTAIN LIVE IGNITION TRAINS, AND WHEN IGNITED, GENERATE HOUSING TEMPERATURES UP TO 500°F (260.0°C). EXERCISE EXTREME CAUTION TO PREVENT INADVERTENT REMOVAL OF FIRING PIN. IF GENERATOR SHOULD BECOME ACTIVATED, IMMEDIATELY PLACE ON NONCOMBUSTIBLE SURFACE.

WARNING: ON INSTALLATION OF OXYGEN GENERATOR, MAKE SURE SHIPPING CAP IS REMOVED FROM FIRING PIN PRIOR TO CLOSING OXYGEN MODULE DOOR.

(4) Check that firing mechanism of oxygen generator is in cocked position and that safety cap is removed.

(5) Check that oxygen generator mounting pins are fully engaged in generator mounting brackets.

(6) Check that oxygen masks are properly installed and mask bags and head straps are inside mask holder.

CAUTION: DO NOT USE ANY LUBRICANT TO EASE HOSE ON TO OUTLET. IF ANY EVIDENCE INDICATES LUBRICANT WAS PREVIOUSLY USED, WIPE OFF OUTLET AND TRIM ABOUT ONE INCH (25.4 MM) OFF HOSE.

(7) Check that visible portion of oxygen supply hoses have no kinks or twists and that hose ends are installed at least 1/2-inch (12.7 mm) onto generator outlet hose fittings.

(8) Check and verify that no lubricant is applied to outlets.

(9) Check that lanyards are properly and neatly stowed along top of mask stowage shelf.

(10) Reset door latching mechanism by placing release plate in contact with latching coil. (Figure 203)

(11) Slowly rotate door upwards.

(12) Close oxygen door slowly and check that latch and strike are engaging properly.

NOTE: As oxygen door is closed, door will compress heat shield.

(13) Check that door closes firmly against stops.

PASSENGER OXYGEN SYSTEM CHEMICAL OXYGEN GENERATOR - REMOVAL/INSTALLATION

1. General

A. This procedure contains task card data.

B. Refer to Twinjet Special Compliance Report MDC-92K9145, SCI 35-1.

TASK 35-20-00-901-801

2. Discard Scott Aviation Passenger Chemical Oxygen Generators

NOTE: This procedure is a scheduled maintenance task.

A. References

Reference	Title
35-22-01 P/B 201	CHEMICAL OXYGEN GENERATOR - MAINTENANCE PRACTICES

B. Discard Scott Aviation Passenger Chemical Oxygen Generators

SUBTASK 35-20-00-901-001

(1) Remove and replace passenger chemical oxygen generators. (CHEMICAL OXYGEN GENERATOR - MAINTENANCE PRACTICES, PAGEBLOCK 35-22-01/201)

NOTE: Refer to Twinjet Special Compliance Report MDC-92K9145, SCI 35-1 for requirement part number applicability and compliance.

END OF TASK

PASSENGER OXYGEN SYSTEM - ADJUSTMENT/TEST

1. General

A. This procedure contains MSG-3 task card data.

TASK 35-20-00-720-801

2. Functional Check of the Passenger Oxygen System using Automatic Mode (Aneroid Switch)

NOTE: This procedure is a scheduled maintenance task.

A. Equipment and Materials

Name and Number	Manufacturer
Air data tester model No. 127-1M	Milhard Engineering
Masking tape, G60340	

NOTE: It is possible that some materials in the Equipment and Materials Table cannot be used for some or all of their necessary applications. Before you use the materials, make sure the types, quantities, and applications of the materials are legally permitted in your location. All persons must obey all applicable federal, state, local and provincial laws and regulations when it is necessary to work with these materials.

B. Prepare for Functional Check of the Passenger Oxygen System using Automatic Mode

SUBTASK 35-20-00-865-001

(1) Make sure that these circuit breakers are closed:

LOWER EPC, DC AIR CONDITIONING & MISCELLANEOUS

Row	Col	Number	Name
U	30	B1-421	CABIN OXYGEN ADVISORY

LOWER EPC, MISCELLANEOUS LEFT DC BUS

Row	Col	Number	Name
P	32	B1-868	PASSENGER OXYGEN CONTROL

UPPER EPC, L AC BUS

Row	Col	Number	Name
WJE 417, 419, 421, 423, 865, 869, 871, 872			
K	31	B1-870	PASSENGER OXYGEN RELEASE
WJE 401-412, 414-416, 418, 420, 422, 424-427, 429, 861-864, 866, 868, 873-881, 883, 884, 886, 887, 891-893			
K	34	B1-870	PASSENGER OXYGEN RELEASE

WJE ALL

NOTE: If CABIN OXYGEN ADVISORY circuit breaker is closed, open circuit breaker, and after 5 seconds close circuit breaker.

SUBTASK 35-20-00-865-002

WARNING: TAG AND USE SAFETY CLIPS TO SAFETY THE CIRCUIT BREAKERS. IF THE CIRCUIT BREAKERS ARE NOT OPENED, TAGGED, AND SAFETIED, INJURY TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(2) Open these circuit breakers and install safety tags:

LOWER EPC, MISCELLANEOUS RIGHT DC BUS

Row	Col	Number	Name
R	32	B1-869	PASSENGER OXYGEN CONTROL ALTERNATE

UPPER EPC, R AC BUS

Row	Col	Number	Name
WJE 417, 419, 421, 423, 865, 869, 871, 872			
L	31	B1-871	ALTERNATE PASSENGER OXYGEN RELEASE
WJE 401-412, 414-416, 418, 420, 422, 424-427, 429, 861-864, 866, 868, 873-881, 883, 884, 886, 887, 891-893			
L	34	B1-871	ALTERNATE PASSENGER OXYGEN RELEASE

WJE ALL

C. Functional Check of the Passenger Oxygen System using Automatic Mode

SUBTASK 35-20-00-720-001

(1) Do the Functional Check of the Passenger Oxygen System using Automatic Mode.

(a) Connect air data test set.

1) Gain access to the aneroid switch above the left forward passenger compartment ceiling panel.

2) Remove vented plug from aneroid switch.

3) Connect air data test set and altimeter test set to pressure port of aneroid switch.

(b) Close the passenger, attendant, and lavatory oxygen compartment doors.

(c) Apply a strip of masking tape, G60340 to each overhead oxygen door to prevent opening fully which may cause accidental generator discharge.

(d) Using air data tester, slowly reduce aneroid pressure to 13,600 ft (4.145 km) altitude.

1) Make sure that all of the oxygen system doors stay closed.

CAUTION: LET THE LATCHING SOLENOID BECOME COOL IF ANOTHER TEST IS NECESSARY. WAIT AT LEAST TEN MINUTES.

(e) Using air data tester, slowly reduce aneroid pressure to 14,150 ±350 ft (4.313 ±0.107 km) altitude.

1) Make sure that all of the oxygen system doors open and CABIN OXYGEN ON annunciator in cockpit is illuminated.

(f) Slowly release the vacuum pressure on aneroid switch.

(g) Disconnect air data test set and altimeter test set from aneroid switch.

(h) Install vented plug in aneroid switch.

NOTE: Make certain that aneroid plug has vent hole and that hole is clear.

(i) Close ceiling panel opened for aneroid access.

(j) Reset all oxygen system door latches.

(k) Close all oxygen compartment doors.

(l) Remove masking tape from overhead oxygen doors.

(m) Open CABIN OXYGEN ADVISORY circuit breaker for 5 seconds and then close to reset circuit.

1) Make sure CABIN OXYGEN ON annunciator in cockpit goes off.

(n) If required, open lower sidewall lighting control circuit breaker for 5 seconds and then close to reset circuit.

1) Make sure all sidewall lights go off.

D. Job Close-up

SUBTASK 35-20-00-865-003

(1) Remove the safety tags and close these circuit breakers:

LOWER EPC, MISCELLANEOUS RIGHT DC BUS

Row	Col	Number	Name
R	32	B1-869	PASSENGER OXYGEN CONTROL ALTERNATE

UPPER EPC, R AC BUS

Row	Col	Number	Name
WJE 417, 419, 421, 423, 865, 869, 871, 872			
L	31	B1-871	ALTERNATE PASSENGER OXYGEN RELEASE
WJE 401-412, 414-416, 418, 420, 422, 424-427, 429, 861-864, 866, 868, 873-881, 883, 884, 886, 887, 891-893			
L	34	B1-871	ALTERNATE PASSENGER OXYGEN RELEASE

WJE ALL

SUBTASK 35-20-00-942-001

(2) Remove all the tools and equipment from the work area. Make sure the area is clean.

——— END OF TASK ———

TASK 35-20-00-710-801

3. Operational Check of the Passenger Oxygen System using Manual Eject Switch

A. Prepare for Operational Check of the Passenger Oxygen System using the Manual Eject Switch

SUBTASK 35-20-00-940-001

(1) Make certain that all passenger, attendant, and lavatory oxygen compartment doors are closed.

SUBTASK 35-20-00-865-004

(2) Make sure that these circuit breakers are closed:

LOWER EPC, DC AIR CONDITIONING & MISCELLANEOUS

Row	Col	Number	Name
U	30	B1-421	CABIN OXYGEN ADVISORY

LOWER EPC, MISCELLANEOUS LEFT DC BUS

Row	Col	Number	Name
P	32	B1-868	PASSENGER OXYGEN CONTROL

UPPER EPC, L AC BUS

Row	Col	Number	Name
WJE 417, 419, 421, 423, 865, 869, 871, 872			
K	31	B1-870	PASSENGER OXYGEN RELEASE
WJE 401-412, 414-416, 418, 420, 422, 424-427, 429, 861-864, 866, 868, 873-881, 883, 884, 886, 887, 891-893			
K	34	B1-870	PASSENGER OXYGEN RELEASE

WJE ALL

NOTE: If CABIN OXYGEN ADVISORY circuit breaker is closed, open circuit breaker, and after 5 seconds close circuit breaker.

SUBTASK 35-20-00-865-005

WARNING: TAG AND USE SAFETY CLIPS TO SAFETY THE CIRCUIT BREAKERS. IF THE CIRCUIT BREAKERS ARE NOT OPENED, TAGGED, AND SAFETIED, INJURY TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(3) Open these circuit breakers and install safety tags:

LOWER EPC, MISCELLANEOUS RIGHT DC BUS

Row	Col	Number	Name
R	32	B1-869	PASSENGER OXYGEN CONTROL ALTERNATE

UPPER EPC, R AC BUS

Row	Col	Number	Name
WJE 417, 419, 421, 423, 865, 869, 871, 872			
L	31	B1-871	ALTERNATE PASSENGER OXYGEN RELEASE
WJE 401-412, 414-416, 418, 420, 422, 424-427, 429, 861-864, 866, 868, 873-881, 883, 884, 886, 887, 891-893			
L	34	B1-871	ALTERNATE PASSENGER OXYGEN RELEASE

WJE ALL

B. Operational Check of the Passenger Oxygen System using Manual Eject Switch

SUBTASK 35-20-00-710-001

WARNING: UNEXPENDED OXYGEN GENERATORS CONTAIN LIVE IGNITION TRAINS, AND, WHEN ACTIVATED, GENERATE CASE TEMPERATURES UP TO 500°F (260°C). USE EXTREME CAUTION WHILE HANDLING TO PREVENT INADVERTENT REMOVAL OF FIRING PIN. IF GENERATOR SHOULD BECOME ACTIVATED, IMMEDIATELY PLACE ON NONCOMBUSTIBLE SURFACE.

CAUTION: DO NOT ACTUATE OXYGEN MASK EJECT SWITCH FOR MORE THAN 5 SECONDS. IF RETEST IS REQUIRED, WAIT AT LEAST 10 MINUTES FOR LATCHING SOLENOIDS TO COOL.

(1) Do the operational check of the passenger oxygen system using manual eject switch.

(a) Place oxygen mask eject switch in MASK EJECT position for approximately 1 second, then release.

1) All passenger, attendant, and lavatory oxygen compartment doors should open.

2) CABIN OXYGEN ON annunciator in cockpit should be illuminated.

(b) Make certain forward cabin attendant oxygen compartment door opens freely to approximately 90 degree angle with minimum 0.030-inch (0.762 mm) clearance between oxygen box door and all adjacent structure and mask deploys.

1) If minimum clearance is not obtained install washers behind forward cabin attendant oxygen box to provide clearance with all adjacent structure.

(c) Close all oxygen doors.

(d) Open CABIN OXYGEN ADVISORY circuit breaker for 5 seconds and then close to reset circuit.

1) Make sure CABIN OXYGEN ON annunciator in cockpit goes off.

C. Job Close-up

SUBTASK 35-20-00-865-006

(1) Remove the safety tags and close these circuit breakers:

LOWER EPC, MISCELLANEOUS RIGHT DC BUS

Row	Col	Number	Name
R	32	B1-869	PASSENGER OXYGEN CONTROL ALTERNATE

UPPER EPC, R AC BUS

Row	Col	Number	Name
WJE 417, 419, 421, 423, 865, 869, 871, 872			
L	31	B1-871	ALTERNATE PASSENGER OXYGEN RELEASE
WJE 401-412, 414-416, 418, 420, 422, 424-427, 429, 861-864, 866, 868, 873-881, 883, 884, 886, 887, 891-893			
L	34	B1-871	ALTERNATE PASSENGER OXYGEN RELEASE

WJE ALL

SUBTASK 35-20-00-942-002

(2) Remove all the tools and equipment from the work area. Make sure the area is clean.

——— END OF TASK ———

PASSENGER OXYGEN SYSTEM - INSPECTION/CHECK

1. General

A. This procedure contains MSG-3 task card data.

TASK 35-20-00-211-801

2. Detailed Inspection of the Passenger Chemical Oxygen Generator

NOTE: This procedure is a scheduled maintenance task.

A. Consumable Materials

NOTE: Equivalent replacements are permitted for the items that follow.

NOTE: It is possible that some materials in the Consumable Materials chart cannot be used for some or all of the necessary applications. Before you use the materials, make sure the types, quantities, and applications of the materials necessary are legally permitted in your location. All persons must obey all applicable federal, state, local, and provincial laws and regulations when it is necessary to work with these materials.

Reference	Description	Specification
B60030	Cleaner/Solvent - Hand Wipe	DPM 6380-4
D60030	Lubricant - Dry Film	DMS 1762 Type 7E

B. Detailed Inspection of the Passenger Chemical Oxygen Generator

SUBTASK 35-20-00-211-001

(1) Do a detailed inspection of the passenger oxygen generator (without insert units).

(a) Open oxygen compartment door slowly, making certain that firing pin lanyards are free and will not pull firing pins on live generator.

WARNING: DRY FILM LUBRICANT IS AN AGENT THAT IS FLAMMABLE, POISONOUS, AND AN IRRITANT. MAKE SURE ALL PERSONS OBEY THE PRECAUTIONS WHEN DRY FILM LUBRICANT IS USED.

- GAS/AIR MIXTURES MORE THAN THE LOWER EXPLOSIVE LIMIT (LEL) CAN CAUSE AN EXPLOSION IF HIGH HEAT, SPARKS, OR FLAMES SUPPLY IGNITION.
- USE IN AN AREA OPEN TO THE AIR.
- CLOSE THE CONTAINER WHEN NOT USED.
- DO NOT GET DRY FILM LUBRICANT IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES.
- DO NOT BREATHE THE GAS.

(b) If there is evidence of binding or excessive friction in door hinge area, lubricate hinge using dry film lubricant, D60030.

NOTE: Repeated use of cleaning solutions or detergents in the area of door frame can form a residue which may cause the door to stick.

WARNING: PASSENGER OXYGEN GENERATORS CONTAIN LIVE IGNITION TRAINS, AND WHEN IGNITED, GENERATE HOUSING TEMPERATURES UP TO 500°F (260.0°C). EXERCISE EXTREME CAUTION TO PREVENT INADVERTENT REMOVAL OF FIRING PIN. IF GENERATOR SHOULD BECOME ACTIVATED, IMMEDIATELY PLACE ON NONCOMBUSTIBLE SURFACE.

(c) Check that firing mechanism release pin is holding firing pin in cocked position and safety cap is removed.

(d) Check that oxygen generator mounting pins are fully engaged by generator mounting brackets.

(e) Check that heat shield is properly installed and that clearance exists between heat shield and oxygen generator.

(f) Reset door latching mechanism by placing release lever flush with latching coil.

(g) Slowly rotate door upwards.

(h) Using pencil or similar small round object, raise oxygen hoses and lanyards above heat shield away from hinge and door edge areas, close oxygen compartment door slowly, making certain that oxygen supply hoses fold without kinks or twists.

NOTE: As oxygen compartment door is closed, door will compress heat shield.

(i) Check that door closes firmly against stops without using excessive preload.

NOTE: Preload not to exceed 8 lb (3.6 kg). If necessary adjust door stops and/or latching mechanism.

CAUTION: EXPOSED LANYARDS CAN INITIATE FIRING MECHANISM OF OXYGEN GENERATOR.

(j) Check door exterior for exposed lanyards and hoses.

SUBTASK 35-20-00-211-002

(2) Do a detailed inspection of the passenger oxygen generator (with insert units).

(a) Manually open oxygen door slowly, making certain that firing pin lanyards are free and will not pull firing pins on live generator.

WARNING: DRY FILM LUBRICANT IS AN AGENT THAT IS FLAMMABLE, POISONOUS, AND AN IRRITANT. MAKE SURE ALL PERSONS OBEY THE PRECAUTIONS WHEN DRY FILM LUBRICANT IS USED.

- GAS/AIR MIXTURES MORE THAN THE LOWER EXPLOSIVE LIMIT (LEL) CAN CAUSE AN EXPLOSION IF HIGH HEAT, SPARKS, OR FLAMES SUPPLY IGNITION.
- USE IN AN AREA OPEN TO THE AIR.
- CLOSE THE CONTAINER WHEN NOT USED.
- DO NOT GET DRY FILM LUBRICANT IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES.
- DO NOT BREATHE THE GAS.

CAUTION: CLEANING SOLUTIONS, DETERGENTS, OR LUBRICANTS MUST NOT COME IN CONTACT WITH MASKS.

(b) If there is evidence of binding or friction in door hinge area, lubricate hinge using dry film lubricant, D60030.

NOTE: Repeated use of cleaning solutions or detergents in the area of the door frame can form a residue which may cause the door to stick. The door frame area should be cleaned with a cloth moistened with handwipe cleaner. After area is dry, lubricate with an approved lubricant.

(c) Check passenger oxygen equipment for evidence of dirt or foreign contamination.

1) Clean area using cleaner/solvent, handwipe, B60030 or replace complete insert unit as required.

2) Passenger oxygen equipment should be clean prior to door closing.

WARNING: PASSENGER OXYGEN GENERATORS CONTAIN LIVE IGNITION TRAINS, AND WHEN IGNITED, GENERATE HOUSING TEMPERATURES UP TO 500°F (260.0°C). EXERCISE EXTREME CAUTION TO PREVENT INADVERTENT REMOVAL OF FIRING PIN. IF GENERATOR SHOULD BECOME ACTIVATED, IMMEDIATELY PLACE ON NONCOMBUSTIBLE SURFACE.

(d) Check that firing mechanism of oxygen generator is in cocked position and that safety cap is removed.

(e) Check that oxygen generator mounting pins are fully engaged in generator mounting brackets.

(f) Reset door latching mechanism by placing release plate in contact with latching coil.

(g) Slowly rotate door upwards.

(h) Close oxygen door slowly and check that latch and strike are engaging properly.

NOTE: As oxygen door is closed, door will compress heat shield.

(i) Check that door closes firmly against stops.

C. Job Close-Up

SUBTASK 35-20-00-840-001

(1) Make sure that all tools are removed and area is clean.

——— END OF TASK ———

TASK 35-20-00-211-802

3. Detailed Inspection of the Passenger Oxygen Masks and Hose Assembly

A. Detailed Inspection of the Passenger Oxygen Masks and Hose Assembly

SUBTASK 35-20-00-211-003

(1) Do a detailed inspection of the passenger oxygen masks and hose assembly as follows:

(a) Open the oxygen mask door and unfold the oxygen mask assembly.

(b) Make sure the oxygen mask and hose assembly are not torn or damaged.

(c) Make sure the oxygen mask and hose assembly are clean and free from contamination such as dirt, grease, oil, or any unwanted material.

(d) Make sure the oxygen mask flapper valves are in place, round, and not distorted.

(e) Check the oxygen mask and hose assembly for the presence of liquid contaminants on the inside and outside surfaces.

(f) Check the headstrap for corroded or distorted clips, elasticity, cleanliness and security of installation.

SUBTASK 35-20-00-860-001

(2) Wrap and fold the passenger oxygen mask and hose assembly as follows:

(a) Fold the both edges of the reservoir bag to centerline of bag (1) and (2).

(b) Fold the reservoir bag at the centerline (3).

(c) Fold reservoir bag away from lanyard attachment hole or mask disconnect ring (4).

(d) Fold the headstrap into the face piece (5).

(e) Wrap the folded reservoir bag over side of the face piece and fold the reservoir bag inside the face piece (6).

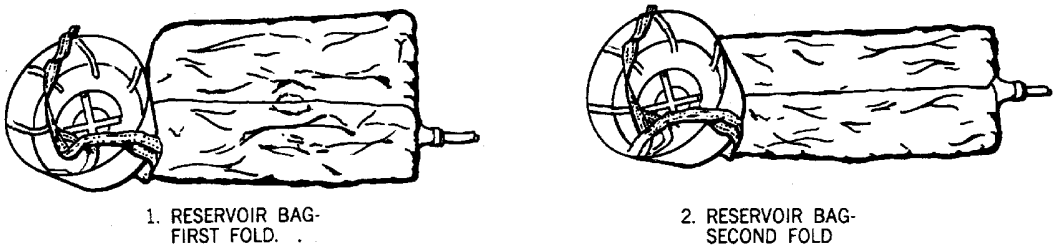
(f) Coil the mask oxygen supply hose clockwise inside the face piece (7).

(g) Put the oxygen mask in position in the mask holder.

(h) Close the oxygen mask door slowly. Make sure the oxygen supply hoses do not bind in the door gap.

NOTE: Check the oxygen hoses position while closing door to make sure hoses are not entangled and kinked.

END OF TASK



Passenger Oxygen Masks Folding Instructions
Figure 601/35-20-00-990-836

OXYGEN DOOR LATCH - MAINTENANCE PRACTICES

1. General

A. This maintenance practice provides removal/installation and adjustment/test instructions for the passenger oxygen door latching mechanism.

B. Access to oxygen door latching mechanism located in passenger overhead positions and the modules for the cabin attendant stations, and lavatories is gained by inserting a small round pencil shaped object through a hole in the compartment door and pushing the latch release mechanism.

C. Removal/installation procedures for all door latching mechanisms are identical unless otherwise noted.

2. Removal/Installation Door Latching Mechanism

A. Remove Latch

WARNING: TAG AND USE SAFETY CLIPS TO SAFETY THE CIRCUIT BREAKERS. IF THE CIRCUIT BREAKERS ARE NOT OPENED, TAGGED, AND SAFETIED, INJURY TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(1) Open these circuit breakers and install safety tags:

LOWER EPC, MISCELLANEOUS LEFT DC BUS

Row	Col	Number	Name
P	32	B1-868	PASSENGER OXYGEN CONTROL

LOWER EPC, MISCELLANEOUS RIGHT DC BUS

Row	Col	Number	Name
R	32	B1-869	PASSENGER OXYGEN CONTROL ALTERNATE

UPPER EPC, L AC BUS

Row	Col	Number	Name
WJE 417, 419, 421, 423, 865, 869, 871, 872			
K	31	B1-870	PASSENGER OXYGEN RELEASE
WJE 401-412, 414-416, 418, 420, 422, 424-427, 429, 861-864, 866, 868, 873-881, 883, 884, 886, 887, 891-893			
K	34	B1-870	PASSENGER OXYGEN RELEASE

UPPER EPC, R AC BUS

Row	Col	Number	Name
WJE 417, 419, 421, 423, 865, 869, 871, 872			
L	31	B1-871	ALTERNATE PASSENGER OXYGEN RELEASE
WJE 401-412, 414-416, 418, 420, 422, 424-427, 429, 861-864, 866, 868, 873-881, 883, 884, 886, 887, 891-893			
L	34	B1-871	ALTERNATE PASSENGER OXYGEN RELEASE

WJE ALL

(2) Manually open applicable oxygen door.

(3) Disconnect electrical connector from latching mechanism and system wiring.

(4) Remove mounting screws and remove latch.

B. Install Latch

WARNING: TAG AND USE SAFETY CLIPS TO SAFETY THE CIRCUIT BREAKERS. IF THE CIRCUIT BREAKERS ARE NOT OPENED, TAGGED, AND SAFETIED, INJURY TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(1) Make sure that these circuit breakers are open and have safety tags:

LOWER EPC, MISCELLANEOUS LEFT DC BUS

Row	Col	Number	Name
P	32	B1-868	PASSENGER OXYGEN CONTROL

LOWER EPC, MISCELLANEOUS RIGHT DC BUS

Row	Col	Number	Name
R	32	B1-869	PASSENGER OXYGEN CONTROL ALTERNATE

UPPER EPC, L AC BUS

Row	Col	Number	Name
WJE 417, 419, 421, 423, 865, 869, 871, 872			
K	31	B1-870	PASSENGER OXYGEN RELEASE
WJE 401-412, 414-416, 418, 420, 422, 424-427, 429, 861-864, 866, 868, 873-881, 883, 884, 886, 887, 891-893			
K	34	B1-870	PASSENGER OXYGEN RELEASE

UPPER EPC, R AC BUS

Row	Col	Number	Name
WJE 417, 419, 421, 423, 865, 869, 871, 872			
L	31	B1-871	ALTERNATE PASSENGER OXYGEN RELEASE
WJE 401-412, 414-416, 418, 420, 422, 424-427, 429, 861-864, 866, 868, 873-881, 883, 884, 886, 887, 891-893			
L	34	B1-871	ALTERNATE PASSENGER OXYGEN RELEASE

WJE ALL

(2) Align door latch, install mounting screws. Do not tighten at this time.

(3) Connect electrical leads of door latching mechanism to system wiring.

(4) Adjust latching mechanism to hold door lightly against stops and tighten screws.

(5) Reset door latching mechanism by placing release lever flush with latching coil. (Figure 202)

NOTE: As door is closed, door mounted latch strike will engage strike retainer and will be held in place by internal spring-loaded mechanism.

(6) Close oxygen door slowly and check that oxygen door is flush with passenger service unit panel, cabin attendant compartment, or lavatory compartment.

(7) Remove the safety tags and close these circuit breakers:

LOWER EPC, MISCELLANEOUS LEFT DC BUS

Row	Col	Number	Name
P	32	B1-868	PASSENGER OXYGEN CONTROL

LOWER EPC, MISCELLANEOUS RIGHT DC BUS

Row	Col	Number	Name
R	32	B1-869	PASSENGER OXYGEN CONTROL ALTERNATE

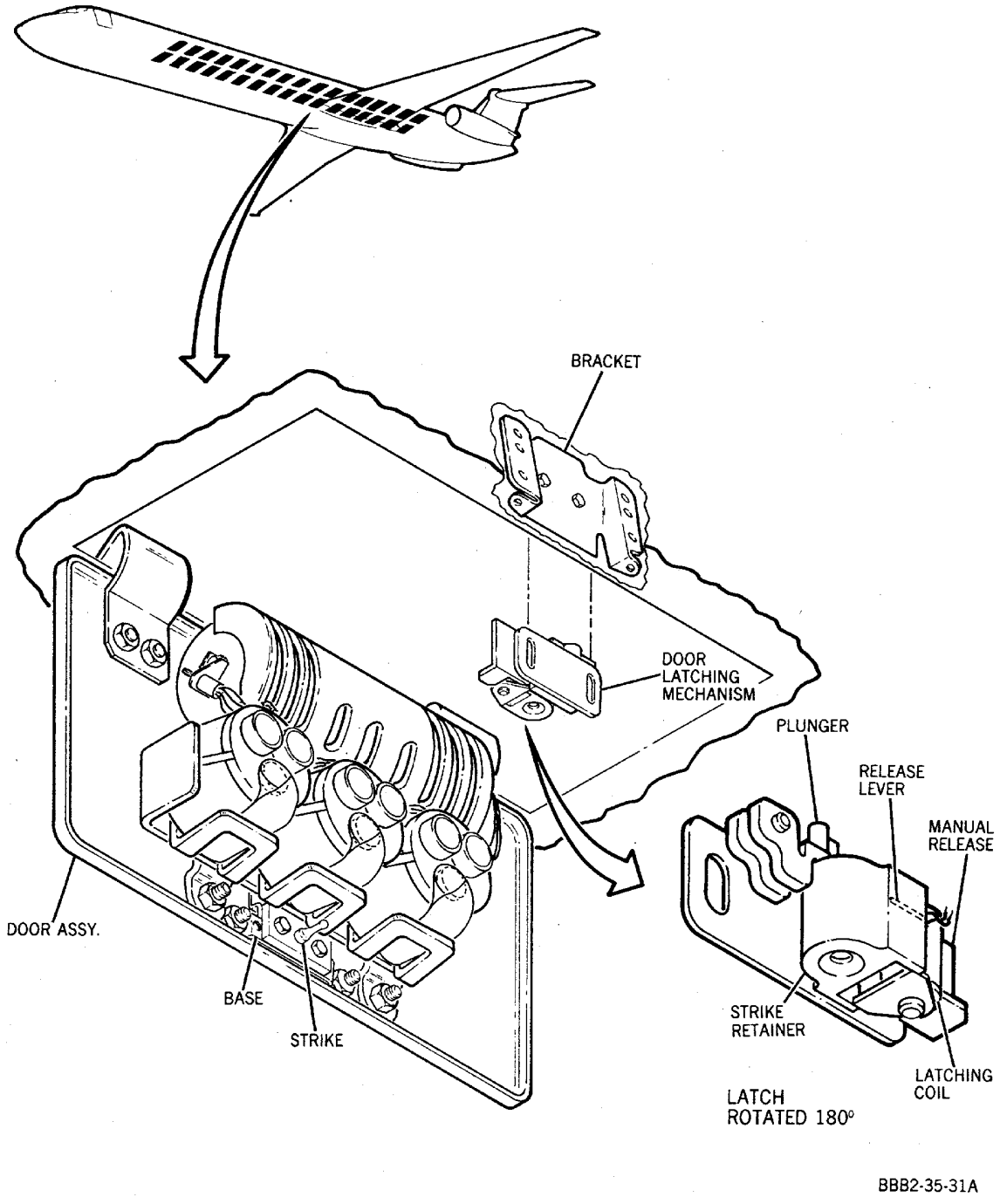
UPPER EPC, L AC BUS

Row	Col	Number	Name
WJE 417, 419, 421, 423, 865, 869, 871, 872			
K	31	B1-870	PASSENGER OXYGEN RELEASE
WJE 401-412, 414-416, 418, 420, 422, 424-427, 429, 861-864, 866, 868, 873-881, 883, 884, 886, 887, 891-893			
K	34	B1-870	PASSENGER OXYGEN RELEASE

UPPER EPC, R AC BUS

Row	Col	Number	Name
WJE 417, 419, 421, 423, 865, 869, 871, 872			
L	31	B1-871	ALTERNATE PASSENGER OXYGEN RELEASE
WJE 401-412, 414-416, 418, 420, 422, 424-427, 429, 861-864, 866, 868, 873-881, 883, 884, 886, 887, 891-893			
L	34	B1-871	ALTERNATE PASSENGER OXYGEN RELEASE

WJE ALL



Oxygen Door Latching Mechanism -- Removal/Installation
Figure 201/35-21-01-990-801

3. **Adjustment/Test Door Latching Mechanism**

A. Test Door Latching Mechanism

(1) Make sure that these circuit breakers are closed:

LOWER EPC, MISCELLANEOUS LEFT DC BUS

Row	Col	Number	Name
P	32	B1-868	PASSENGER OXYGEN CONTROL

LOWER EPC, MISCELLANEOUS RIGHT DC BUS

Row	Col	Number	Name
R	32	B1-869	PASSENGER OXYGEN CONTROL ALTERNATE

UPPER EPC, L AC BUS

Row	Col	Number	Name
WJE 417, 419, 421, 423, 865, 869, 871, 872			
K	31	B1-870	PASSENGER OXYGEN RELEASE
WJE 401-412, 414-416, 418, 420, 422, 424-427, 429, 861-864, 866, 868, 873-881, 883, 884, 886, 887, 891-893			
K	34	B1-870	PASSENGER OXYGEN RELEASE

UPPER EPC, R AC BUS

Row	Col	Number	Name
WJE 417, 419, 421, 423, 865, 869, 871, 872			
L	31	B1-871	ALTERNATE PASSENGER OXYGEN RELEASE
WJE 401-412, 414-416, 418, 420, 422, 424-427, 429, 861-864, 866, 868, 873-881, 883, 884, 886, 887, 891-893			
L	34	B1-871	ALTERNATE PASSENGER OXYGEN RELEASE

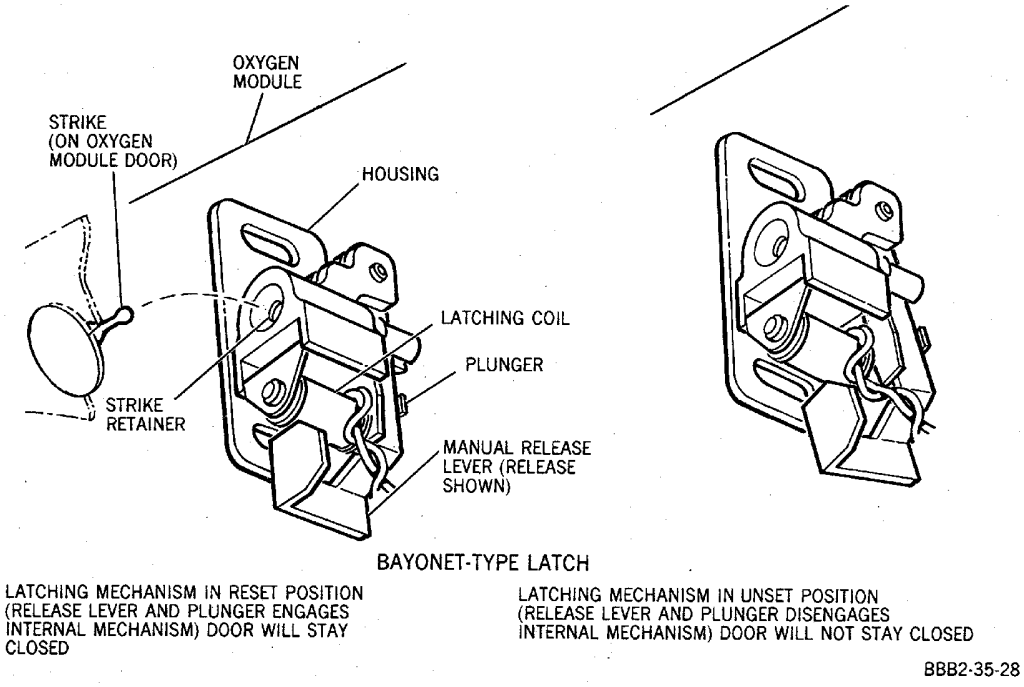
WJE ALL

CAUTION: DO NOT ACTUATE OXYGEN MASK EJECT SWITCH FOR MORE THAN 5 SECONDS. IF RETEST IS REQUIRED, WAIT AT LEAST 10 MINUTES FOR LATCHING SOLENOIDS TO COOL.

(2) Momentarily place OXY EJECT switch in EJECT position. All oxygen doors should open.

(3) Reset door latching mechanism by placing release lever flush with latching coil. (Figure 202)

(4) Close all oxygen doors.



Door Latching Mechanism -- Reset
Figure 202/35-21-01-990-802

ANEROID SWITCH - MAINTENANCE PRACTICES

1. General

A. This maintenance practice provides removal/installation and adjustment/test procedures for the passenger oxygen system aneroid switch.

B. The aneroid switch is located on the forward cabin ceiling transformer panel in the left forward passenger compartment.

2. Equipment and Materials

NOTE: Some materials in the Equipment and Materials list may not be permitted to be used in your location. Persons in each location must make sure they are permitted to use these materials. All persons must obey all applicable federal, state, local, and provincial regulations for their location.

Table 201

Name and Number	Manufacturer
Multimeter (Model 2000A)	Dana
Air data tester model No. 127-1M	Milhard Engineering
NOTE: Combined tolerance of gage and calibration standard not to exceed ±0.030 psia (±0.063 in. HgA).	

3. Removal/Installation Aneroid Switch

A. Remove Switch

WARNING: TAG AND USE SAFETY CLIPS TO SAFETY THE CIRCUIT BREAKERS. IF THE CIRCUIT BREAKERS ARE NOT OPENED, TAGGED, AND SAFETIED, INJURY TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(1) Open these circuit breakers and install safety tags:

LOWER EPC, MISCELLANEOUS LEFT DC BUS

Row	Col	Number	Name
P	32	B1-868	PASSENGER OXYGEN CONTROL

LOWER EPC, MISCELLANEOUS RIGHT DC BUS

Row	Col	Number	Name
R	32	B1-869	PASSENGER OXYGEN CONTROL ALTERNATE

UPPER EPC, L AC BUS

Row	Col	Number	Name
WJE 417, 419, 421, 423, 865, 869, 871, 872			
K	31	B1-870	PASSENGER OXYGEN RELEASE
WJE 401-412, 414-416, 418, 420, 422, 424-427, 429, 861-864, 866, 868, 873-881, 883, 884, 886, 887, 891-893			
K	34	B1-870	PASSENGER OXYGEN RELEASE

UPPER EPC, R AC BUS

Row	Col	Number	Name
WJE 417, 419, 421, 423, 865, 869, 871, 872			
L	31	B1-871	ALTERNATE PASSENGER OXYGEN RELEASE

WJE 417, 419, 421, 423, 865, 869, 871, 872 (Continued)

(Continued)

UPPER EPC, R AC BUS

Row	Col	Number	Name
WJE 401-412, 414-416, 418, 420, 422, 424-427, 429, 861-864, 866, 868, 873-881, 883, 884, 886, 887, 891-893			
L	34	B1-871	ALTERNATE PASSENGER OXYGEN RELEASE

WJE ALL

(2) Disconnect and tag electrical wires from aneroid switch.

(3) Remove switch from transformer panel.

B. Install Switch

WARNING: TAG AND USE SAFETY CLIPS TO SAFETY THE CIRCUIT BREAKERS. IF THE CIRCUIT BREAKERS ARE NOT OPENED, TAGGED, AND SAFETIED, INJURY TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(1) Make sure that these circuit breakers are open and have safety tags:

LOWER EPC, MISCELLANEOUS LEFT DC BUS

Row	Col	Number	Name
P	32	B1-868	PASSENGER OXYGEN CONTROL

LOWER EPC, MISCELLANEOUS RIGHT DC BUS

Row	Col	Number	Name
R	32	B1-869	PASSENGER OXYGEN CONTROL ALTERNATE

UPPER EPC, L AC BUS

Row	Col	Number	Name
WJE 417, 419, 421, 423, 865, 869, 871, 872			
K	31	B1-870	PASSENGER OXYGEN RELEASE
WJE 401-412, 414-416, 418, 420, 422, 424-427, 429, 861-864, 866, 868, 873-881, 883, 884, 886, 887, 891-893			
K	34	B1-870	PASSENGER OXYGEN RELEASE

UPPER EPC, R AC BUS

Row	Col	Number	Name
WJE 417, 419, 421, 423, 865, 869, 871, 872			
L	31	B1-871	ALTERNATE PASSENGER OXYGEN RELEASE
WJE 401-412, 414-416, 418, 420, 422, 424-427, 429, 861-864, 866, 868, 873-881, 883, 884, 886, 887, 891-893			
L	34	B1-871	ALTERNATE PASSENGER OXYGEN RELEASE

WJE ALL

(2) Install switch on forward cabin equipment panel.

(3) Connect electrical wires to aneroid switch.

(4) Remove the safety tags and close these circuit breakers:

LOWER EPC, MISCELLANEOUS LEFT DC BUS

Row	Col	Number	Name
P	32	B1-868	PASSENGER OXYGEN CONTROL

LOWER EPC, MISCELLANEOUS RIGHT DC BUS

Row	Col	Number	Name
R	32	B1-869	PASSENGER OXYGEN CONTROL ALTERNATE

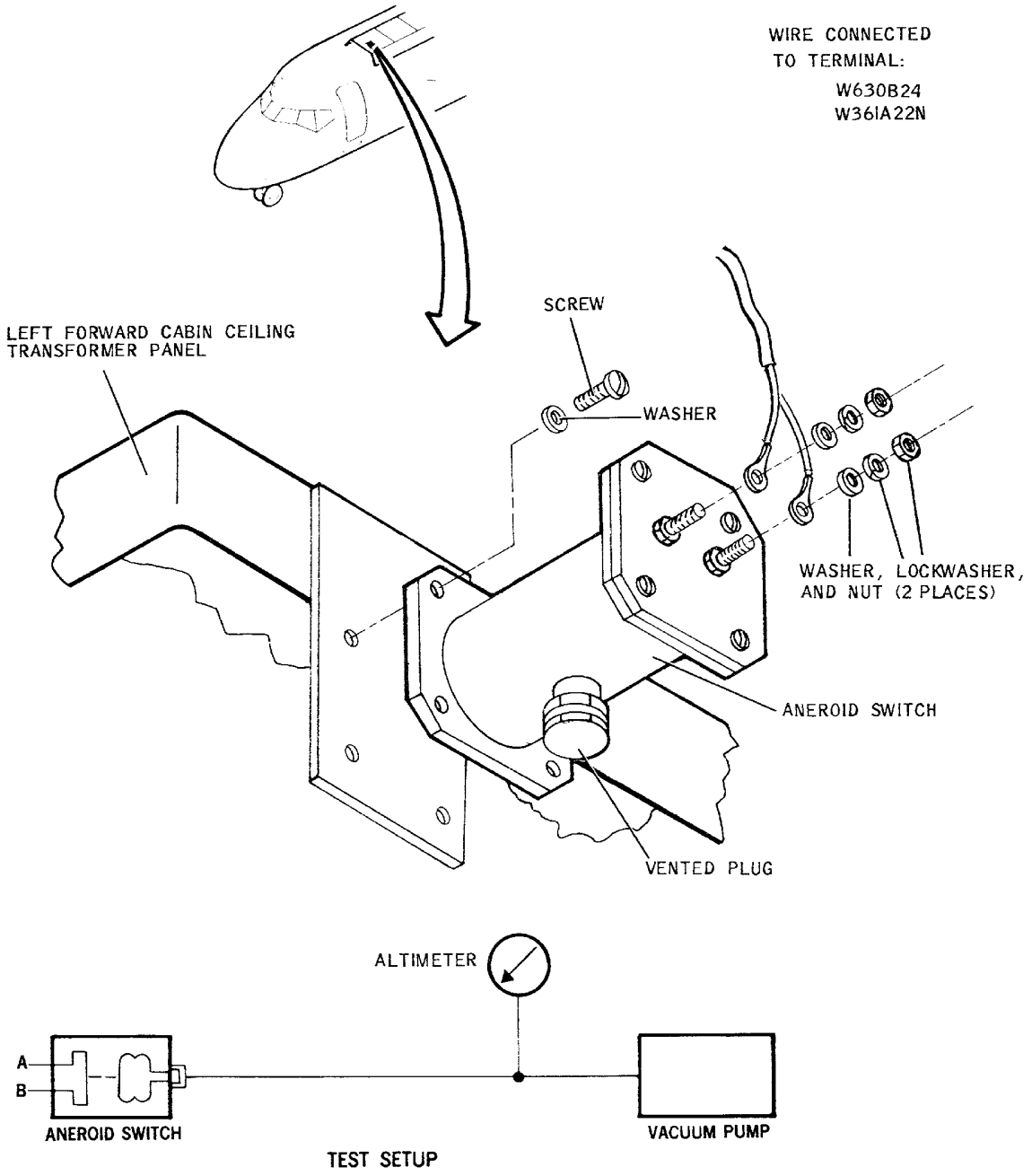
UPPER EPC, L AC BUS

Row	Col	Number	Name
WJE 417, 419, 421, 423, 865, 869, 871, 872			
K	31	B1-870	PASSENGER OXYGEN RELEASE
WJE 401-412, 414-416, 418, 420, 422, 424-427, 429, 861-864, 866, 868, 873-881, 883, 884, 886, 887, 891-893			
K	34	B1-870	PASSENGER OXYGEN RELEASE

UPPER EPC, R AC BUS

Row	Col	Number	Name
WJE 417, 419, 421, 423, 865, 869, 871, 872			
L	31	B1-871	ALTERNATE PASSENGER OXYGEN RELEASE
WJE 401-412, 414-416, 418, 420, 422, 424-427, 429, 861-864, 866, 868, 873-881, 883, 884, 886, 887, 891-893			
L	34	B1-871	ALTERNATE PASSENGER OXYGEN RELEASE

WJE ALL



Aneroid Switch -- Removal/Installation and Test Setup
Figure 201/35-21-02-990-801

4. Adjustment/Test Aneroid Switch

A. Test Switch

WARNING: TAG AND USE SAFETY CLIPS TO SAFETY THE CIRCUIT BREAKERS. IF THE CIRCUIT BREAKERS ARE NOT OPENED, TAGGED, AND SAFETIED, INJURY TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(1) Open these circuit breakers and install safety tags:

LOWER EPC, MISCELLANEOUS LEFT DC BUS

Row	Col	Number	Name
P	32	B1-868	PASSENGER OXYGEN CONTROL

LOWER EPC, MISCELLANEOUS RIGHT DC BUS

Row	Col	Number	Name
R	32	B1-869	PASSENGER OXYGEN CONTROL ALTERNATE

UPPER EPC, L AC BUS

Row	Col	Number	Name
WJE 417, 419, 421, 423, 865, 869, 871, 872			
K	31	B1-870	PASSENGER OXYGEN RELEASE
WJE 401-412, 414-416, 418, 420, 422, 424-427, 429, 861-864, 866, 868, 873-881, 883, 884, 886, 887, 891-893			
K	34	B1-870	PASSENGER OXYGEN RELEASE

UPPER EPC, R AC BUS

Row	Col	Number	Name
WJE 417, 419, 421, 423, 865, 869, 871, 872			
L	31	B1-871	ALTERNATE PASSENGER OXYGEN RELEASE
WJE 401-412, 414-416, 418, 420, 422, 424-427, 429, 861-864, 866, 868, 873-881, 883, 884, 886, 887, 891-893			
L	34	B1-871	ALTERNATE PASSENGER OXYGEN RELEASE

WJE ALL

(2) Disconnect electrical wires from aneroid switch.

(3) Remove vented plug (if installed).

(4) Connect test assembly to pressure port of aneroid switch. (Figure 201)

(5) Connect multimeter to electrical terminals of switch.

(6) Using vacuum pump on air data tester, slowly reduce switch pressure. Continuity should be indicated on multimeter at test gage indication of 14,150 ±350 ft (4313 ±107 m) altitude.

(7) Increase switch pressure to ambient and remove test equipment.

CAUTION: PLUG USED IN TEST PORT MUST BE VENTED TO ATMOSPHERE.

(8) Install vented plug in pressure sensing test port (if removed in Paragraph 4.A.(3)).

(9) Connect electrical wires to aneroid switch.

(10) Remove the safety tags and close these circuit breakers:

LOWER EPC, MISCELLANEOUS LEFT DC BUS

Row	Col	Number	Name
P	32	B1-868	PASSENGER OXYGEN CONTROL

LOWER EPC, MISCELLANEOUS RIGHT DC BUS

Row	Col	Number	Name
R	32	B1-869	PASSENGER OXYGEN CONTROL ALTERNATE

UPPER EPC, L AC BUS

Row	Col	Number	Name
WJE 417, 419, 421, 423, 865, 869, 871, 872			
K	31	B1-870	PASSENGER OXYGEN RELEASE
WJE 401-412, 414-416, 418, 420, 422, 424-427, 429, 861-864, 866, 868, 873-881, 883, 884, 886, 887, 891-893			
K	34	B1-870	PASSENGER OXYGEN RELEASE

UPPER EPC, R AC BUS

Row	Col	Number	Name
WJE 417, 419, 421, 423, 865, 869, 871, 872			
L	31	B1-871	ALTERNATE PASSENGER OXYGEN RELEASE
WJE 401-412, 414-416, 418, 420, 422, 424-427, 429, 861-864, 866, 868, 873-881, 883, 884, 886, 887, 891-893			
L	34	B1-871	ALTERNATE PASSENGER OXYGEN RELEASE

OXYGEN MASK SYSTEM - CLEANING

1. General

A. This section contains the data necessary to clean the unitized oxygen insert assembly.

B. Refer to PASSENGER OXYGEN MASK - MAINTENANCE PRACTICES, PAGEBLOCK 35-22-02/201 for the oxygen masks on your aircraft and to remove and install as necessary the mask(s).

2. Equipment and Materials

NOTE: Equivalent substitutes may be used for the items that follow.

NOTE: It is possible that some materials in the Equipment and Materials list cannot be used for some or all of the necessary applications. Before you use the materials, make sure the types, quantities, and applications of the materials necessary are legally permitted in your location. All person must obey all applicable federal, state, local, and provincial laws and regulations when it is necessary to work with these materials.

Name and Number	Manufacturer
Spray - Atomizer STD-817	Not specified
Cleaner - Liquid Detergent DPM 5216 B60022	
Solvent - Denatured, Ethyl Alcohol DPM 514 (MIL-A-6091) B60091	
Solvent - Isopropyl Alcohol DPM 530 (TT-1-735, Grade A) B60095	
Nitrogen - Dry DPM 154-2 (MIL-P-27401) G60193	
Water - Deionized G60420	
Water - Distilled G60422	
Wipers - Cleaning, Cotton, White DMS 1820 T1A2 G60428	
Wipers - Disinfecting DPM 6121 G60430	
Indicator - pH	

3. Cleaning Procedures

A. Standard Cleaning Procedures

WARNING: DO NOT USE OIL OR OTHER PETROLEUM BASE LUBRICANTS ON OXYGEN EQUIPMENT. IT WILL CREATE A DANGEROUS FIRE HAZARD.

WARNING: USE THE HAZARDOUS MATERIAL WARNINGS GIVEN BELOW FOR THE STEPS THAT FOLLOW.

THE HAZARDOUS MATERIAL WARNINGS ARE LISTED AFTER THE INTRODUCTION SECTION IN THE FRONT OF THE AMM.

Hazardous Material Warnings

HAZMAT 1319, CLEANER/LIQUID DETERGENT (DPM 5216)

HAZMAT 1000, REFER TO MSDS

(1) Clean contaminated mask hoses with liquid detergent (B60022). Rinse mask hoses with distilled water (G60422) or deionized water (G60420) until the drained rinse water has the same pH as the rinse water.

NOTE: Use a pH indicator to get the pH level.

WARNING: USE THE HAZARDOUS MATERIAL WARNINGS GIVEN BELOW FOR THE STEPS THAT FOLLOW.

THE HAZARDOUS MATERIAL WARNINGS ARE LISTED AFTER THE INTRODUCTION SECTION IN THE FRONT OF THE AMM.

Hazardous Material Warnings

HAZMAT 1030, ISOPROPYL ALCOHOL (DPM 530)

HAZMAT 1687, DISINFECTING WIPERS (SANI-COM 3205 / DPM 6121)

HAZMAT 1000, REFER TO MSDS

(2) Lightly soiled masks and hoses may be cleaned with isopropyl alcohol solvent (B60095) or disinfecting wipers (G60430) and dried with dry nitrogen (G60193).

(3) Disinfect masks that have been used as follows:

WARNING: USE THE HAZARDOUS MATERIAL WARNINGS GIVEN BELOW FOR THE STEPS THAT FOLLOW.

THE HAZARDOUS MATERIAL WARNINGS ARE LISTED AFTER THE INTRODUCTION SECTION IN THE FRONT OF THE AMM.

Hazardous Material Warnings

HAZMAT 1073, ETHYL ALCOHOL (DPM 514)

HAZMAT 1000, REFER TO MSDS

(a) Using an atomizer spray (STD-817), apply a light coat of isopropyl alcohol solvent (B60095) or ethyl alcohol denatured solvent (B60091) to mask face cup.

CAUTION: DO NOT USE AN AIR BLAST TO ACCELERATE DRYING.

(b) Allow mask to air-dry before repacking.

(4) Wipe remaining parts with clean, dry white cotton cleaning wipers (G60428).

CHEMICAL OXYGEN GENERATOR - MAINTENANCE PRACTICES

1. General

A. This maintenance practice provides removal/installation procedures for the chemical oxygen generator.

B. Access to oxygen modules located in cabin attendant stations and lavatories is gained by inserting a small round pin shaped object through a hole in the module door and pushing the latch release.

C. Removal/installation procedures for all generators are identical unless otherwise noted.

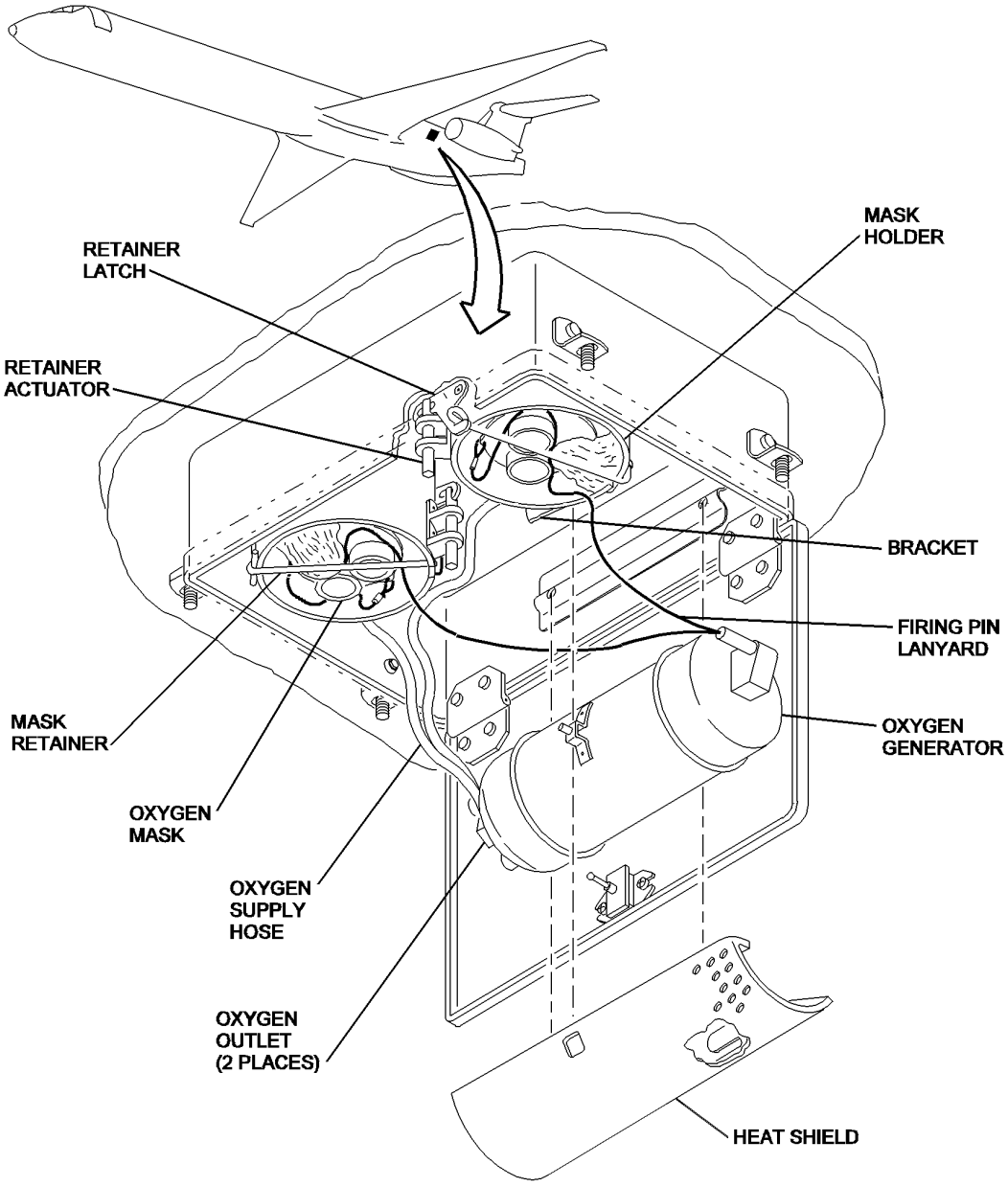
D. Instructions for the storage and disposal of generators are provided. (Paragraph 3.C. and Paragraph 3.D.)

2. Equipment and Materials

NOTE: Equivalent substitutes may be used instead of the following listed item:

Table 201

Name and Number	Manufacturer
Cap, Oxygen Generator Firing Mechanism - Safety (P/N 36425-00)	Scott Aviation Div. of Figgie Intnl., Inc. 225 Erie St. Lancaster, NY 14806-9502



BBB2-35-32A
S0006550388V2

Chemical Oxygen Generator -- Removal/Installation
Figure 201/35-22-01-990-801

3. **Removal/Installation Chemical Oxygen Generator**

A. Remove Generator

WARNING: MAKE SURE YOU OBEY ALL APPLICABLE REGULATORY REQUIREMENTS FOR THE TRANSPORT OF OXYGEN GENERATORS. IF THE SERVICE LIFE OF THE GENERATORS HAS EXPIRED, YOU MUST FIRE THE GENERATORS AND MAKE SURE THE OXIDIZER CORE IS EMPTY. THIS MUST BE DONE BEFORE YOU PREPARE THE GENERATORS FOR TRANSPORT. IF THE GENERATORS ARE NOT FIRED AND EMPTY, THEY CAN ACCIDENTALLY FIRE DURING TRANSPORT AND CAUSE HEAT AND IGNITION. THIS CAN CAUSE DEATH OR INJURY TO PERSONS AND DAMAGE TO THE AIRCRAFT.

WARNING: UNEXPENDED OXYGEN GENERATORS CONTAIN LIVE IGNITION TRAINS, AND, WHEN ACTIVATED, GENERATE CASE TEMPERATURES UP TO 500°F (260°C). USE EXTREME CAUTION WHILE HANDLING TO PREVENT INADVERTENT REMOVAL OF FIRING PIN. IF GENERATOR SHOULD BECOME ACTIVATED, IMMEDIATELY PLACE ON NONCOMBUSTIBLE SURFACE.

NOTE: Passenger overhead environmental panels contain unitized oxygen insert units. If generator is to be replaced in these units, the insert may be removed to facilitate generator replacement if desired or the individual generator itself can be replaced without removing the insert.

(1) Manually open oxygen module door slowly, making certain that firing pin lanyards are free and will not pull firing pin on live generator.

NOTE: Oxygen in forward attendant's modules will drop out if door is allowed to swing open.

(2) If generator has not been expended, install safety cap on firing pin.

NOTE: If no safety shipping cap is available for installation at generator removal, generator must receive special handling to prevent inadvertent discharge until firing mechanism can be placed in safe mode with safety cap or by equivalent method.

CAUTION: DO NOT PULL THE OXYGEN GENERATOR FIRING PIN WHEN YOU DISCONNECT OR CONNECT THE LANYARD(S). IF YOU PULL THE PIN, THE GENERATOR WILL FIRE.

(3) Disconnect firing pin lanyards from oxygen mask.

NOTE: Lanyards remain attached to firing pin.

(4) Press heat shield towards generator until heat shield bracket lugs can be lifted out of mounting holes in oxygen module and remove heat shield.

NOTE: Heat shield is not incorporated in forward attendant's module.

WARNING: PASSENGER OXYGEN GENERATORS CONTAIN LIVE IGNITION TRAINS, AND WHEN IGNITED, GENERATE HOUSING TEMPERATURES UP TO 500°F (260.0°C). EXERCISE EXTREME CAUTION TO PREVENT INADVERTENT REMOVAL OF FIRING PIN. IF GENERATOR SHOULD BECOME ACTIVATED, IMMEDIATELY PLACE ON NONCOMBUSTIBLE SURFACE.

(5) Lift bracket at center of generator and remove generator from mounting hat.

NOTE: Generator is spring-loaded and could pop out if not held in position when center bracket is lifted.

(6) Remove oxygen supply hoses from generator oxygen outlets.

(7) Coil firing pin lanyards and secure to generator body.

WARNING: PASSENGER OXYGEN GENERATORS CONTAIN LIVE IGNITION TRAINS, AND WHEN IGNITED, GENERATE HOUSING TEMPERATURES UP TO 500°F (260.0°C). EXERCISE EXTREME CAUTION TO PREVENT INADVERTENT REMOVAL OF FIRING PIN. IF GENERATOR SHOULD BECOME ACTIVATED, IMMEDIATELY PLACE ON NONCOMBUSTIBLE SURFACE.

WARNING: PRIOR TO REMOVAL OF UNEXPENDED OXYGEN GENERATOR, INSTALL SHIPPING CAP OVER FIRING PIN TO PREVENT INADVERTENT INITIATION OF GENERATOR.

WARNING: MAKE SURE YOU OBEY ALL APPLICABLE REGULATORY REQUIREMENTS FOR THE TRANSPORT OF OXYGEN GENERATORS. IF THE SERVICE LIFE OF THE GENERATORS HAS EXPIRED, YOU MUST FIRE THE GENERATORS AND MAKE SURE THE OXIDIZER CORE IS EMPTY. THIS MUST BE DONE BEFORE YOU PREPARE THE GENERATORS FOR TRANSPORT. IF THE GENERATORS ARE NOT FIRED AND EMPTY, THEY CAN ACCIDENTALLY FIRE DURING TRANSPORT AND CAUSE HEAT AND IGNITION. THIS CAN CAUSE DEATH OR INJURY TO PERSONS AND DAMAGE TO THE AIRCRAFT.

(8) Install safety cap on generator firing pin mechanism.

NOTE: If no safety shipping cap is available for installation at generator removal, the generator must receive special handling to prevent inadvertent discharge until firing mechanism can be placed in a safe mode with safety cap or by equivalent method.

(9) Store or dispose of oxygen generator. (Paragraph 3.C. Paragraph 3.D.)

B. Install Generator

NOTE: Generators with internal filter must be replaced by same. Do not replace with generator which has filter external of firing mechanism.

(1) Clear lanyards from generator body.

(2) If applicable, make sure that the generator has two O-rings installed.

NOTE: Not all generators have O-rings. The unitized passenger overhead generators has two O-rings.

CAUTION: DO NOT USE ANY LUBRICANT TO EASE HOSE ONTO OUTLET. IF ANY EVIDENCE INDICATES LUBRICANT WAS PREVIOUSLY USED, WIPE OFF OUTLET AND TRIM ABOUT ONE INCH (25.4 MM) OFF HOSE.

(3) Connect oxygen supply hoses to generator oxygen outlets and check that hoses are installed at least ½ in. (13 mm) over outlets. Make certain that no lubricant is applied to outlets.

(4) Lift center bracket and engage generator side having two pins into holes in mounting hat, then lower center bracket over generator upper mounting pin.

CAUTION: MINIMUM ⅝ IN. (16 MM) CLEARANCE MUST BE MAINTAINED TO ALLOW PROPER COOLING WHEN GENERATOR IS ACTIVATED.

(5) Insert heat shield bracket lugs into mounting holes in bottom of oxygen module. Check that ⅝ in. (16 mm) clearance exists between heat shield and oxygen generator.

NOTE: Heat shield is not incorporated in forward attendant's module.

CAUTION: USE CARE NOT TO PULL GENERATOR FIRING PIN WHILE CONNECTING AND ADJUSTING LANYARDS.

(6) Connect firing pin lanyards to masks using bowline knot installation. With module door in open position, make certain that applicable lanyard length is as follows: (Figure 203)

Table 202

OXYGEN MODULE LOCATION	LANYARD LENGTH
Forward attendants console	17.0 in. (431.8 mm)(±1.0 in. (25.4 mm)
Aft attendants console	23.0 in. (584.2 mm)(±1.0 in. (25.4 mm)
WJE 401-404, 412, 414-427, 429, 861-866, 868, 869, 871-874, 886, 887, 891-893	
Lavatory (cabinet console)	10.0 in. (254.0 mm)
WJE 405-411, 875-881, 883, 884	
Lavatory	10.0 in. (254.0 mm)
WJE ALL	
Lavatory (overhead)	69.0 in. (1752.6 mm)(±0.5 in. (12.7 mm)) measuring from floor to mask attach point
WJE 405-411, 415-427, 429, 861-866, 868, 869, 871-881, 883, 884, 891-893	
Lavatory (overhead)	12.0 in. (304.8 mm)(±0.5 in. (12.7 mm)) measuring below mask from mask attach point to streamer attach point
WJE 401-412, 414, 873-881, 883, 884, 886, 887, 892, 893	
5th attendants seat	1.0 in. (25.4 mm)(±0.5 in. (12.7 mm)) slack
WJE 405-411, 415-427, 429, 861-866, 868, 869, 871-881, 883, 884, 891-893	
Intermediate attendants seat	50.0 in. (1270.0 mm)(±1.0 in. (25.4 mm)) measuring from floor to mask attach point
WJE ALL	

(7) Remove excess lanyard.

(8) If required, fold oxygen mask. (Figure 204)

(9) Reset door latching mechanism by placing release lever flush with latching coil. (Figure 202)

NOTE: As door is closed, door mounted latch strike will engage strike retainer and will be held in place by an internal spring-loaded mechanism.

WARNING: PASSENGER OXYGEN GENERATORS CONTAIN LIVE IGNITION TRAINS, AND WHEN IGNITED, GENERATE HOUSING TEMPERATURES UP TO 500°F (260.0°C). EXERCISE EXTREME CAUTION TO PREVENT INADVERTENT REMOVAL OF FIRING PIN. IF GENERATOR SHOULD BECOME ACTIVATED, IMMEDIATELY PLACE ON NONCOMBUSTIBLE SURFACE.

WARNING: ON INSTALLATION OF OXYGEN GENERATOR, MAKE SURE SHIPPING CAP IS REMOVED FROM FIRING PIN PRIOR TO CLOSING OXYGEN MODULE DOOR.

(10) Remove safety cap from generator primer and check that firing mechanism of the oxygen generator is in cocked position.

NOTE: Safety cap must be removed or generator will not fire when needed.

(11) Close oxygen module door slowly.

C. Storage of Oxygen Generator

WARNING: PASSENGER OXYGEN GENERATORS CONTAIN LIVE IGNITION TRAINS, AND WHEN IGNITED, GENERATE HOUSING TEMPERATURES UP TO 500°F (260.0°C). EXERCISE EXTREME CAUTION TO PREVENT INADVERTENT REMOVAL OF FIRING PIN. IF GENERATOR SHOULD BECOME ACTIVATED, IMMEDIATELY PLACE ON NONCOMBUSTIBLE SURFACE.

WARNING: ON INSTALLATION OF OXYGEN GENERATOR, MAKE SURE SHIPPING CAP IS REMOVED FROM FIRING PIN PRIOR TO CLOSING OXYGEN MODULE DOOR.

(1) Oxygen generators must be stored in safe environment.

(a) Each unit shall be checked before placing it in storage to make certain that safety cap to restrain firing mechanism is correctly installed.

(b) All serviceable (unexpended) and unserviceable (expended) oxygen generators (canisters) are to be stored in an area that provides protection that each unit is not exposed to high temperatures or possible damage.

D. Disposal of Oxygen Generator (Canister)

(1) No oxygen generator (canister) is to be disposed of until it is initiated (fired) and chemical core is fully expended.

(2) Initiation and expending of an oxygen generator may be accomplished as follows:

(a) Securely mount generator (canister) in a holding device which is securely mounted to prevent movement, and is nonflammable.

(b) Immediate and adjacent surrounding area must be free of oil and/or any other combustible substances that may be hazardous in an oxygen enriched atmosphere.

(c) With canister firmly held in place and safety considerations satisfied, pull release pin from firing mechanism. Spring-loaded mechanism will now strike percussion cap and cause oxygen generator to ignite internally and expend.

WARNING: PASSENGER OXYGEN GENERATORS CONTAIN LIVE IGNITION TRAINS, AND WHEN IGNITED, GENERATE HOUSING TEMPERATURES UP TO 500°F (260.0°C). EXERCISE EXTREME CAUTION TO PREVENT INADVERTENT REMOVAL OF FIRING PIN. IF GENERATOR SHOULD BECOME ACTIVATED, IMMEDIATELY PLACE ON NONCOMBUSTIBLE SURFACE.

WARNING: DURING INITIATION, OXYGEN GENERATOR (CANISTER) EXTERIOR WILL REACH TEMPERATURES IN EXCESS OF 450°F (232.2°C). SEVERE BURNS TO PERSONNEL COULD RESULT.

(d) Once oxygen generator has been fully expended and exterior (canister) temperature has cooled, it may be disposed of.

WARNING: BARIUM OXIDE IS AN AGENT THAT IS POISONOUS, AN IRRITANT, AND CAUSES CORROSION. MAKE SURE ALL PERSONS OBEY THE PRECAUTIONS WHEN BARIUM OXIDE IS USED.

- DO NOT USE IN AREAS WHERE THERE IS HIGH HEAT SPARKS, OR FLAMES.
- USE IN AN AREA OPEN TO THE AIR.
- CLOSE THE CONTAINER WHEN NOT USED.
- DO NOT GET BARIUM OXIDE IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES.
- DO NOT BREATHE THE GAS.

WARNING: ASBESTOS IS AN AGENT THAT IS CARCINOGENIC. MAKE SURE ALL PERSONS OBEY ALL OF THE PRECAUTIONS WHEN ASBESTOS IS USED.

- DO NOT GET ASBESTOS IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES.
- DO NOT BREATHE THE ASBESTOS CONTAMINATION MATERIAL.

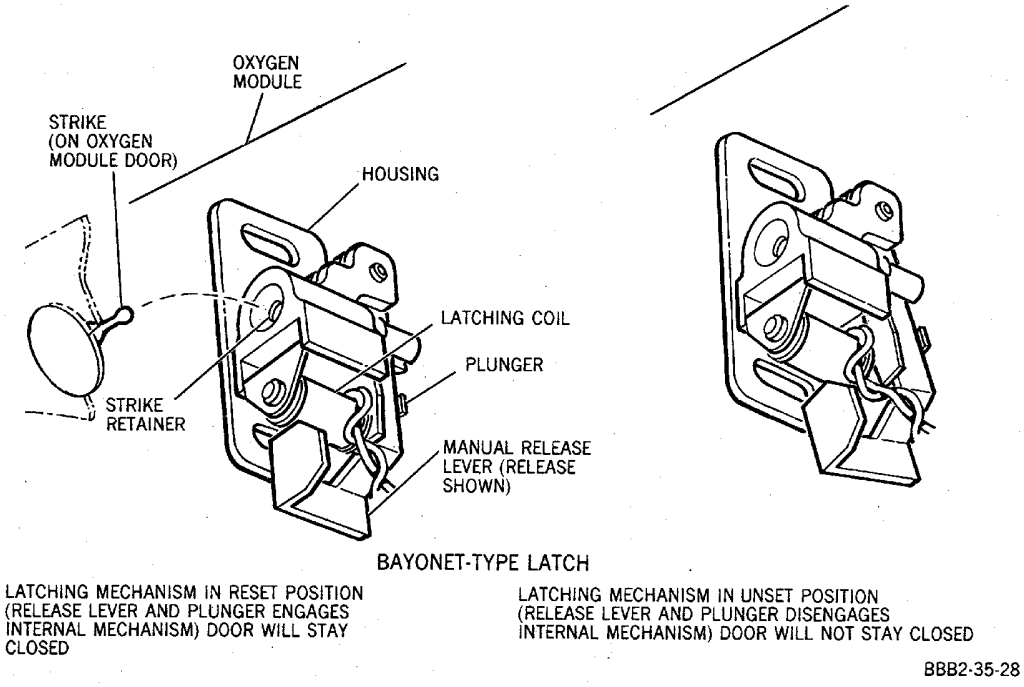
WARNING: REFER TO THE APPLICABLE MANUFACTURER'S OR SUPPLIERS'S MSDS FOR:

- MORE PRECAUTIONARY DATA
- APPROVED SAFETY EQUIPMENT
- EMERGENCY MEDICAL AID.

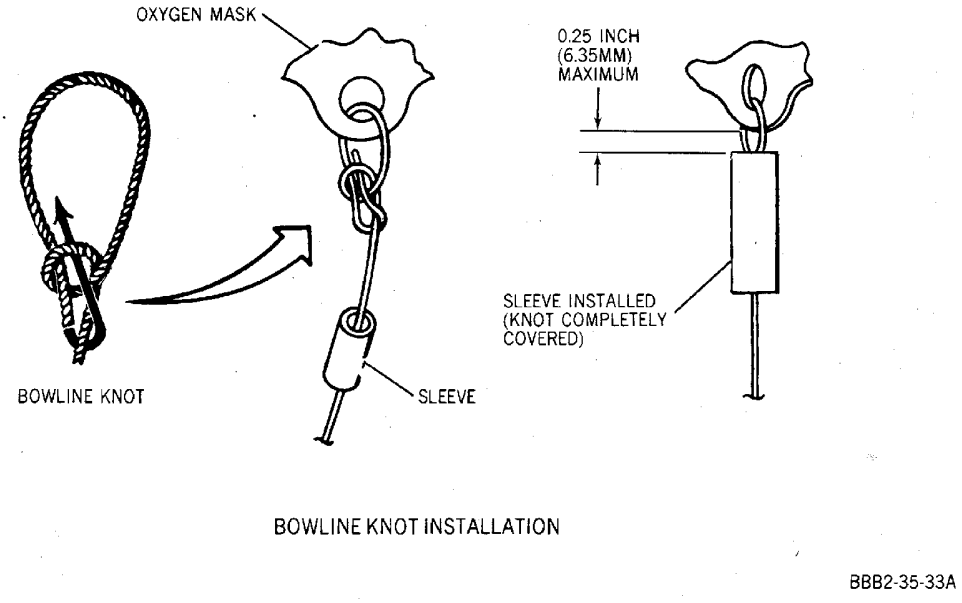
TALK WITH THE LOCAL SAFETY DEPARTMENT OR AUTHORITIES FOR THE PROCEDURES TO DISCARD THESE HAZARDOUS AGENTS.

(e) An expended oxygen generator (canister) contains both barium oxide and asbestos fibers and must be disposed of in accordance with local regulatory compliances and using authorized procedures.

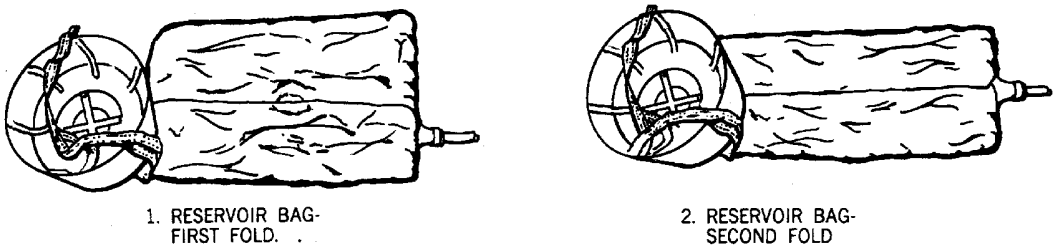
(3) In event oxygen generator cannot be ignited and expended through normal means, of if user has additional questions, they are directed to contact oxygen generator manufacturer for additional information.



Door Latching Mechanism -- Reset
Figure 202/35-22-01-990-802

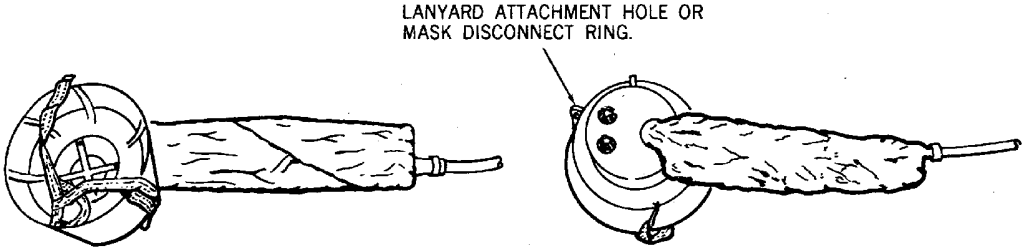


Generator Lanyard To Mask -- Installation
Figure 203/35-22-01-990-803



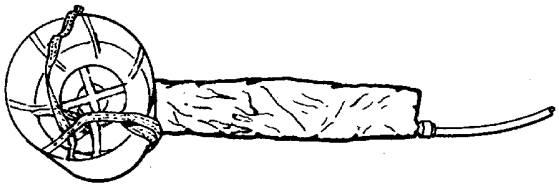
1. RESERVOIR BAG-
FIRST FOLD.

2. RESERVOIR BAG-
SECOND FOLD

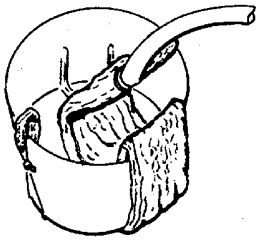


3. RESERVOIR BAG-
FINAL FOLD

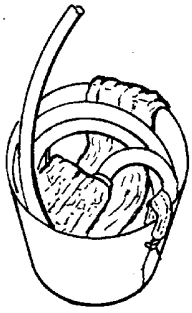
4. FOLD RESERVOIR BAG AWAY FROM
LANYARD ATTACHMENT HOLE
OR MASK DISCONNECT RING.



5. TURN MASK OPEN SIDE UP AND
FOLD HEADSTRAP INTO FACE PIECE.



6. BRING FOLDED RESERVOIR
BAG UP OVER SIDE OF FACE
PIECE AND PLACE INSIDE IN
DOUBLE FOLD.



7. WITH RESERVOIR BAG FOLDED
IN FACE PIECE, COIL MASK
SUPPLY TUBE CLOCKWISE
ON FOLDED BAG.

BBB2-35-34

Oxygen Mask -- Folding Instructions
Figure 204/35-22-01-990-804

PASSENGER OXYGEN MASK - MAINTENANCE PRACTICES

1. General

A. This maintenance practice provides removal/installation and check procedures for the passenger oxygen masks.

B. Access to oxygen modules located in cabin attendant stations, lavatories and individual passenger service units is gained by inserting a small round pin shaped object through a hole in the module door and pushing up to activate the latch release.

C. Removal/installation procedures for all oxygen masks are identical unless otherwise noted.

2. Removal/Installation Passenger Oxygen Masks

A. Remove Oxygen Mask

(Figure 201)

NOTE: Passenger overhead service units contain unitized oxygen insert modules. If all oxygen masks are to be replaced in these units, remove and replace insert unit. (PASSENGER OXYGEN INSERT UNIT - MAINTENANCE PRACTICES, PAGEBLOCK 35-22-03/201 Config 1)

NOTE: Any individual mask may be replaced within the module without removing the module assembly. (Figure 201 - Figure 206)

(1) Manually open oxygen module door slowly.

NOTE: Oxygen masks in forward attendant's modules will drop out if door is allowed to swing open.

CAUTION: USE CAUTION NOT TO PULL GENERATOR FIRING PIN WHILE DISCONNECTING LANYARD.

(2) Disconnect generator firing pin lanyard from oxygen mask, then coil and stow lanyard to avoid pulling firing pin.

(3) Remove mask from mask holder.

(4) Disconnect oxygen supply hose from oxygen generator outlet.

B. Install Oxygen Mask

CAUTION: DO NOT USE ANY LUBRICANT TO EASE HOSE ONTO OUTLET. IF ANY EVIDENCE INDICATES LUBRICANT WAS PREVIOUSLY USED, WIPE OFF OUTLET AND TRIM ABOUT ONE INCH (25.4 MM) OFF HOSE.

(1) Connect oxygen supply hose to oxygen generator outlet so that hose is installed at least 1/2 inch (12.7 mm) over outlet. Make certain that no lubricant is applied to outlets.

(2) Fold mask and install in mask retainer. (Figure 205)

CAUTION: USE CAUTION NOT TO PULL GENERATOR FIRING PIN WHILE CONNECTING LANYARD.

(3) Connect oxygen generator firing pin lanyard to mask using bowline knot installation. With module door in open position, make certain that lanyard length is as follows: (Figure 202)

WJE 405-411, 875-881, 883, 884

Table 201

OXYGEN MODULE LOCATION	LANYARD LENGTH
Forward attendants console	17.0(±1.0) inches (431.8(±25.4) mm)
Aft attendants console	23.0(±1.0) inches (584.2(±25.4) mm)
Lavatory	10.0 inches (254.0 mm)
Lavatory (overhead)	69.0(±0.5) inches (1752.6(±12.7) mm) measuring from floor to mask attach point
Lavatory (overhead)	12.0(±0.5) inches (304.8(±12.7) mm) measuring below mask from mask attach point to streamer attach point
Intermediate attendants seat	50.0(±1.0) inches (1270.0(±25.4) mm) measuring from floor to mask attach point
5th attendants seat	12.0-14.0 inches (304.8-355.6 mm)
Individual Passenger Service Units, Masks 1, 2 and 3 left and right (Figure 206)	6.5-7.5 inches (165.1-190.5 mm)
Individual Passenger Service Units, Mask 4 left and/or right (Figure 206)	7.5-8.5 inches (190.5-215.9 mm)

WJE 415-427, 429, 861-866, 868, 869, 871, 872, 891

Table 202

OXYGEN MODULE LOCATION	LANYARD LENGTH
Forward attendants console	17.0(±1.0) inches (431.8(±25.4) mm)
Aft attendants console	23.0(±1.0) inches (584.2(±25.4) mm)
Lavatory (cabinet console)	10.0 inches (254.0 mm)
Lavatory (overhead)	69.0(±0.5) inches (1752.6(±12.7) mm) measuring from floor to mask attach point
Lavatory (overhead)	12.0(±0.5) inches (304.8(±12.7) mm) measuring below mask from mask attach point to streamer attach point

WJE 415-427, 429, 861-866, 868, 869, 871, 872, 891 (Continued)

Table 202 (Continued)

OXYGEN MODULE LOCATION	LANYARD LENGTH
Intermediate attendants seat	50.0(±1.0) inches (1270.0(±25.4) mm) measuring from floor to mask attach point
Individual Passenger Service Units, Masks 1, 2 and 3 left and right (Figure 206)	6.5-7.5 inches (165.1-190.5 mm)
Individual Passenger Service Units, Mask 4 left and/or right (Figure 206)	7.5-8.5 inches (190.5-215.9 mm)

WJE 401-404, 412, 414

Table 203

OXYGEN MODULE LOCATION	LANYARD LENGTH
Forward attendants console	17.0(±1.0) inches (431.8(±25.4) mm)
Aft attendants console	23.0(±1.0) inches (584.2(±25.4) mm)
Lavatory (cabinet console)	10.0 inches (254.0 mm)
Lavatory (overhead)	69.0(±0.5) inches (1752.6(±12.7) mm) measuring from floor to mask attach point
5th attendants seat	12.0-14.0 inches (304.8-355.6 mm)
Individual Passenger Service Units, Masks 1, 2 and 3 left and right (Figure 206)	6.5-7.5 inches (165.1-190.5 mm)
Individual Passenger Service Units, Mask 4 left and/or right (Figure 206)	7.5-8.5 inches (190.5-215.9 mm)

WJE 886, 887

Table 204

OXYGEN MODULE LOCATION	LANYARD LENGTH
Forward attendants console	17.0(±1.0) inches (431.8(±25.4) mm)
Aft attendants console	23.0(±1.0) inches (584.2(±25.4) mm)
Lavatory (cabinet console)	10.0 inches (254.0 mm)

WJE 886, 887 (Continued)

Table 204 (Continued)

OXYGEN MODULE LOCATION	LANYARD LENGTH
Lavatory (overhead)	69.0(±0.5) inches (1752.6(±12.7) mm) measuring from floor to mask attach point
5th attendants seat (for aircraft 151-154)	12.0-14.0 inches (304.8-355.6 mm)
Individual Passenger Service Units, Masks 1, 2 and 3 left and right (Figure 206)	6.5-7.5 inches (165.1-190.5 mm)
Individual Passenger Service Units, Mask 4 left and/or right (Figure 206)	7.5-8.5 inches (190.5-215.9 mm)

WJE 873, 874, 892, 893

Table 205

OXYGEN MODULE LOCATION	LANYARD LENGTH
Forward attendants console	17.0(±1.0) inches (431.8(±25.4) mm)
Aft attendants console	23.0(±1.0) inches (584.2(±25.4) mm)
Lavatory (cabinet console)	10.0 inches (254.0 mm)
Lavatory (overhead)	69.0(±0.5) inches (1752.6(±12.7) mm) measuring from floor to mask attach point
Lavatory (overhead)	12.0(±0.5) inches (304.8(±12.7) mm) measuring below mask from mask attach point to streamer attach point
Intermediate attendants seat	50.0(±1.0) inches (1270.0(±25.4) mm) measuring from floor to mask attach point
5th attendants seat (for aircraft 102-114, 151)	12.00-14.00 inches (304.8-355.6 mm)
Individual Passenger Service Units, Masks 1, 2 and 3 left and right (Figure 206)	6.5-7.5 inches (165.1-190.5 mm)
Individual Passenger Service Units, Mask 4 left and/or right (Figure 206)	7.5-8.5 inches (190.5-215.9 mm)

WJE 412, 414

Table 206

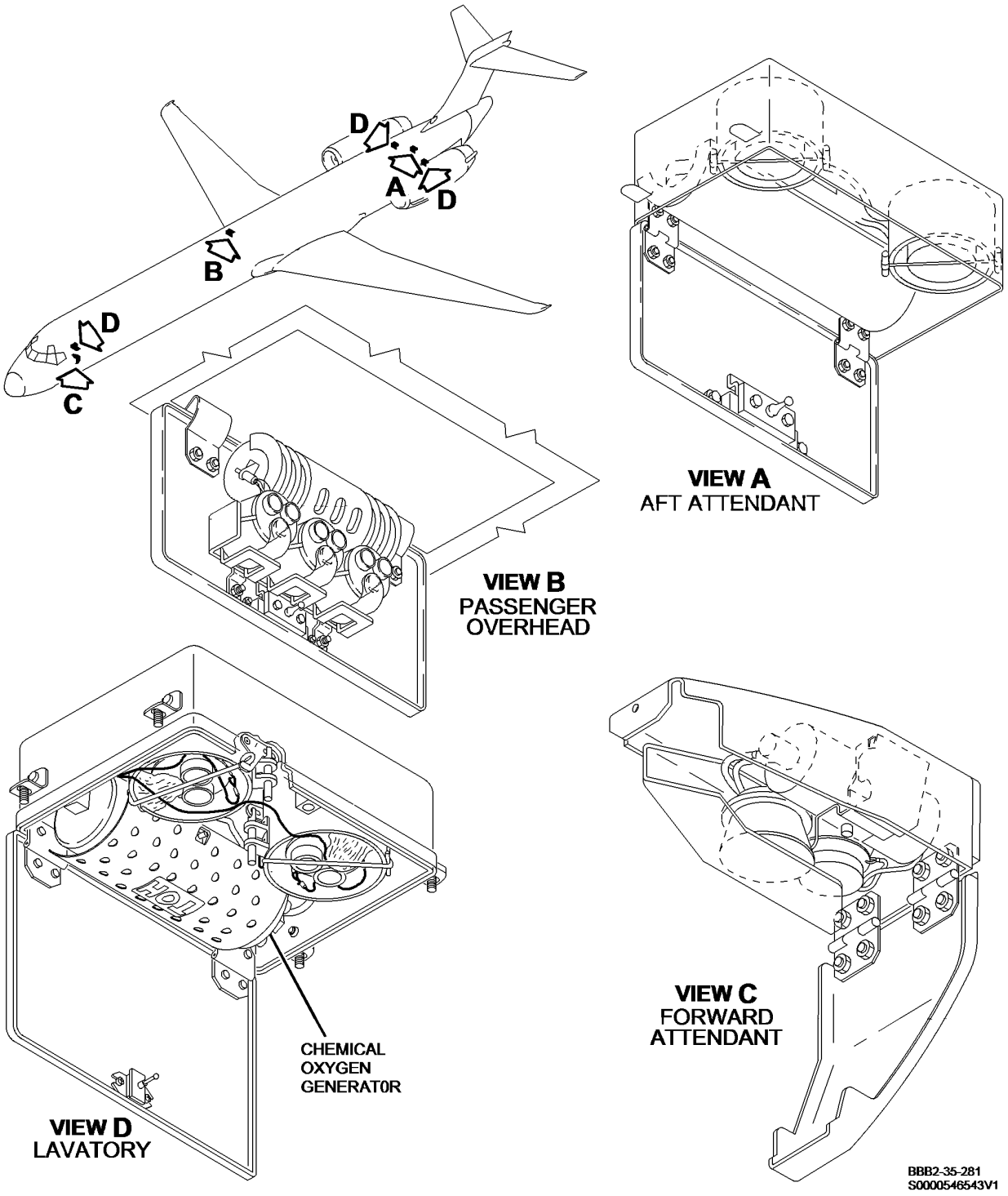
OXYGEN MODULE LOCATION	LANYARD LENGTH
Forward attendants console	17.0(±1.0) inches (431.8(±25.4) mm)
Aft attendants console	23.0(±1.0) inches (584.(±25.4) mm)
Lavatory (cabinet console) or Lavatory	10.0 inches (254.0 mm)
Lavatory (overhead) (on aircraft 401-402)	69.0(±0.5) inches (1752.6(±12.7) mm) measuring from floor to mask attach point
5th attendants seat (on aircraft 401-402)	12.0-14.0 inches (304.8-355.6 mm)
5th attendants seat (on aircraft 109-112)	23.0(±2.0) inches (584.2 (±50.8)mm) slack
Individual Passenger Service Units, Masks 1, 2 and 3 left and right (Figure 206)	6.5-7.5 inches (165.1-190.5 mm)
Individual Passenger Service Units, Mask 4 left and/or right (Figure 206)	7.5-8.5 inches (190.5-215.9 mm)

WJE ALL

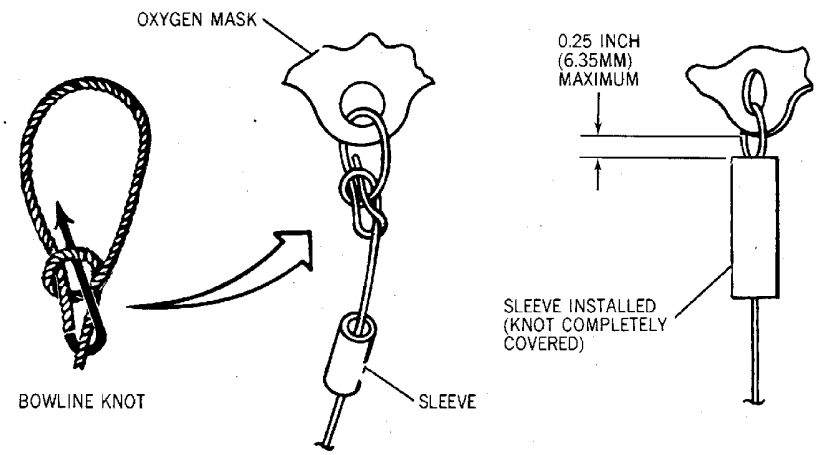
(4) Reset door latching mechanism by placing release lever flush with latching coil. (Figure 203)

NOTE: As door is closed, door mounted latch strike will engage strike retainer and will be held in place by an internal spring-loaded mechanism.

(5) Close oxygen module door slowly.



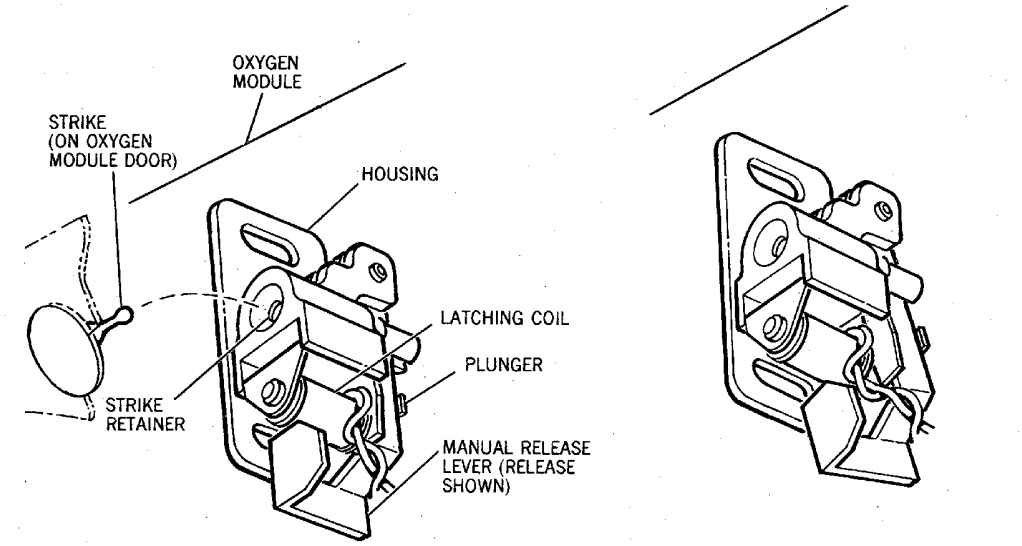
Passenger Oxygen Modules
Figure 201/35-22-02-990-801



BOWLINE KNOT INSTALLATION

BBB2-35-33A

Generator Lanyard To Mask -- Installation
Figure 202/35-22-02-990-803



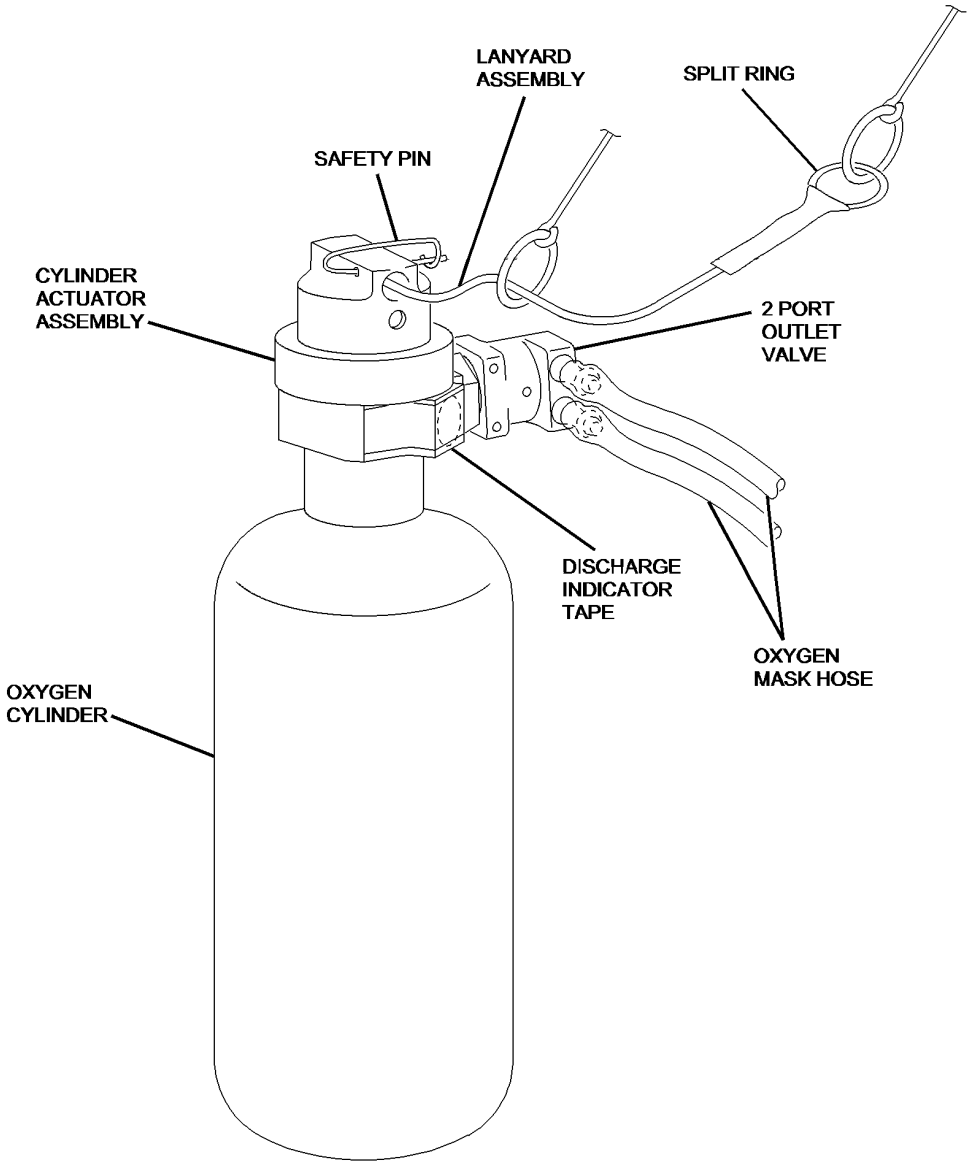
BAYONET-TYPE LATCH

LATCHING MECHANISM IN RESET POSITION (RELEASE LEVER AND PLUNGER ENGAGES INTERNAL MECHANISM) DOOR WILL STAY CLOSED

LATCHING MECHANISM IN UNSET POSITION (RELEASE LEVER AND PLUNGER DISENGAGES INTERNAL MECHANISM) DOOR WILL NOT STAY CLOSED

BBB2-35-28

Door Latching Mechanism -- Reset
Figure 203/35-22-02-990-804



OXYGEN CYLINDER
(EXAMPLE)

BBB2-35-273A
S0000545651V2

Oxygen Cylinder Assembly
Figure 204/35-22-02-990-813

3. Check Passenger Oxygen Mask

A. Check Oxygen Mask

(1) Unfold oxygen mask and check facepiece for tears, holes, or other visible damage.

(2) Check reservoir bag and tubing for deterioration, tears, splits, or hardening.

(3) Gently stretch all rubber parts and check seams for tears, cracks, or deformation of material.

(4) Fold oxygen mask as follows:

NOTE: Numbers in parentheses in the following instructions refer to corresponding numbered views in Figure 205.

(a) Fold both edges of reservoir bag to center of bag (1), (2).

(b) Fold reservoir bag at center (3).

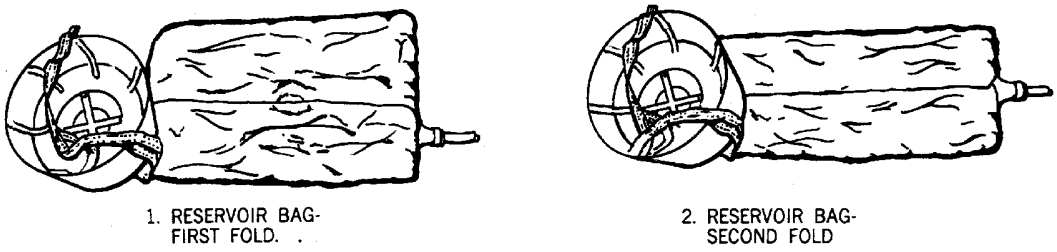
(c) Fold reservoir bag away from lanyard attachment hole or mask disconnect ring (4).

(d) Fold headstrap neatly into facepiece (5).

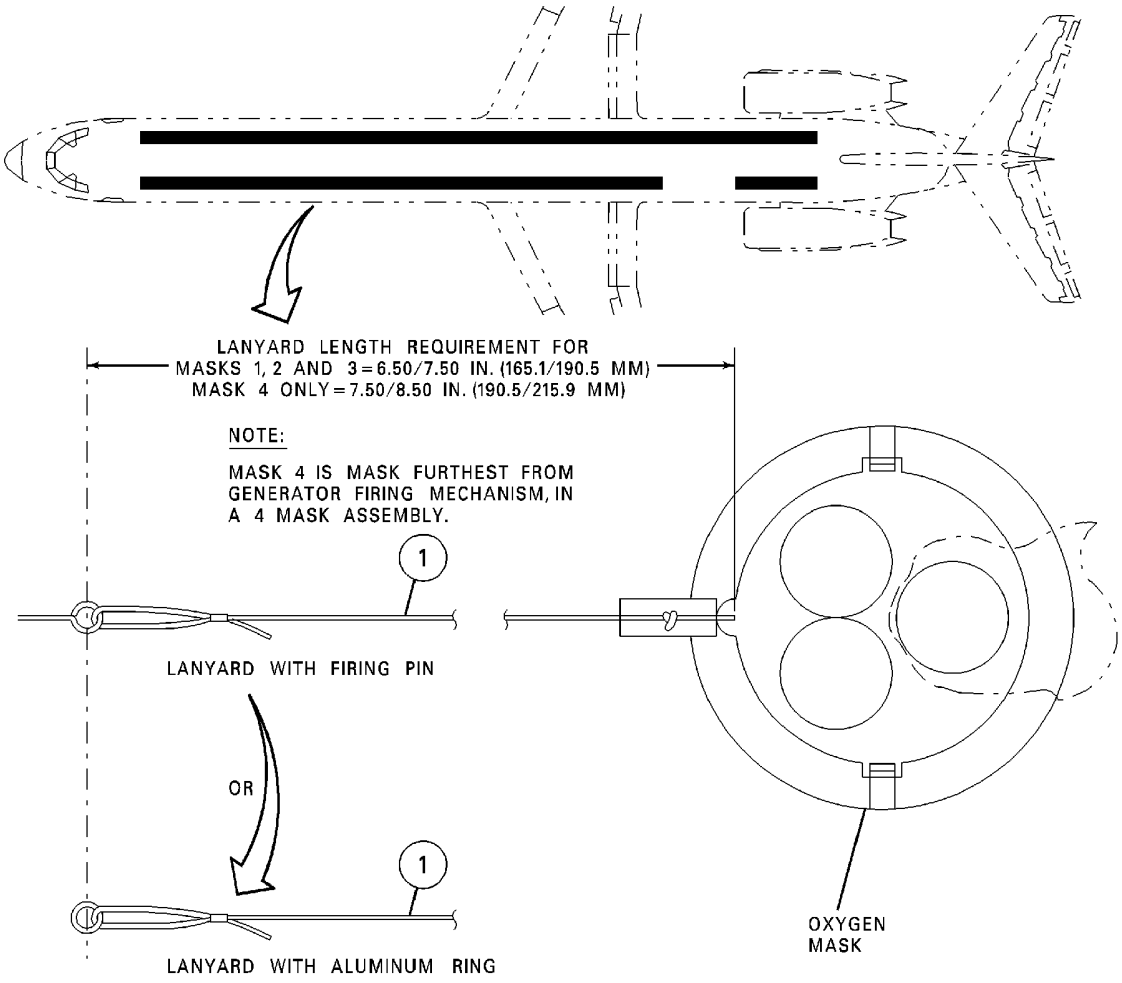
(e) Wrap folded reservoir bag over side of facepiece, and fold bag inside of facepiece (6).

(f) Coil mask supply tube clockwise inside facepiece (7).

(g) Oxygen mask is now ready for installation.



Passenger Oxygen Mask -- Folding Instructions
Figure 205/35-22-02-990-805



(1) MEASURE PASSENGER SERVICE UNIT OXYGEN MASK LANYARDS TO DETERMINE EXACT LENGTH AND ACCOMPLISH THE FOLLOWING:

NOTE:

MEASURE LANYARDS FROM LOOP ON FIRING PIN (SHOWN) TO MASK OR ALUMINUM RING (ALSO SHOWN) TO MASK.

a. IF CORRECT, NO FURTHER WORK REQUIRED.

b. IF INCORRECT, MODIFY LANYARDS TO THE CORRECT LENGTH BY RETYING KNOT OF LANYARD (AT MASK). TRIM EXCESS. (SEE MAINTENANCE MANUAL, CHAPTER 35-22-02, PARAGRAPH ENTITLED "REMOVAL/INSTALLATION PASSENGER OXYGEN MASK".)

CAG(IGDS) BBB2-35-86

Individual Passenger Oxygen Mask -- Removal/Installation
Figure 206/35-22-02-990-806

PASSENGER OXYGEN INSERT UNIT - MAINTENANCE PRACTICES

1. General

A. This maintenance practice provides removal/installation procedures for the passenger oxygen insert unit.

B. Access to oxygen insert units located in passenger overhead utility panels is gained by inserting a small round pin shaped object through a hole in the oxygen door and pushing the latch release.

C. Removal/installation procedures for insert units are identical except for number of masks installed.

D. Numbers in parentheses in the following text correspond to callouts in Figure 201.

2. Removal/Installation Passenger Oxygen Insert Unit

A. Remove Insert Unit

(1) Manually open oxygen door slowly.

WARNING: UNEXPENDED OXYGEN GENERATORS IN INSERT UNITS CONTAIN LIVE IGNITION TRAINS, AND WHEN ACTIVATED, GENERATE CASE TEMPERATURES IN EXCESS OF 500°F (260°C). USE EXTREME CAUTION WHILE HANDLING TO PREVENT INADVERTENT REMOVAL OF FIRING PIN. IF GENERATOR SHOULD BECOME ACTIVE, IMMEDIATELY PLACE ON A NONCOMBUSTIBLE SURFACE.

WARNING: MAKE SURE YOU OBEY ALL APPLICABLE REGULATORY REQUIREMENTS FOR THE TRANSPORT OF OXYGEN GENERATORS. IF THE SERVICE LIFE OF THE GENERATORS HAS EXPIRED, YOU MUST FIRE THE GENERATORS AND MAKE SURE THE OXIDIZER CORE IS EMPTY. THIS MUST BE DONE BEFORE YOU PREPARE THE GENERATORS FOR TRANSPORT. IF THE GENERATORS ARE NOT FIRED AND EMPTY, THEY CAN ACCIDENTALLY FIRE DURING TRANSPORT AND CAUSE HEAT AND IGNITION. THIS CAN CAUSE DEATH OR INJURY TO PERSONS AND DAMAGE TO THE AIRCRAFT.

(2) If generator has not been expended, install safety cap over primer.

(3) Remove nuts (1) and washers from upper bolts on insert unit. (Figure 201)

(4) Holding insert unit against door, remove nuts (2) and washers from lower studs on door.

(5) Slide insert unit mounting tabs off of lower studs on door and remove unit.

(6) Note number of masks installed in unit.

B. Install Insert Unit

(1) Check oxygen area for evidence of dirt or foreign contamination, clean area if necessary.

(2) Using insert unit having same number of masks noted on removal, align unit in position and install washers and nuts (2) on lower studs. (Figure 201)

(3) Install upper bolts, washers and nuts (1).

(4) Tighten nuts (2) to torque of 12 to 15 inch-pounds (1.344 to 1.680 N·m).

(5) Check that visible portion of oxygen supply hoses have no kinks or twists and that hose ends are slipped at least 1/2-inch (12.7 mm) onto generator inlet hose fittings.

(6) Check that lanyards are properly and neatly stowed along top of mask stowage shelf.

(7) Reset door latching mechanism by placing release lever plate in contact with latching coil. (Figure 202)

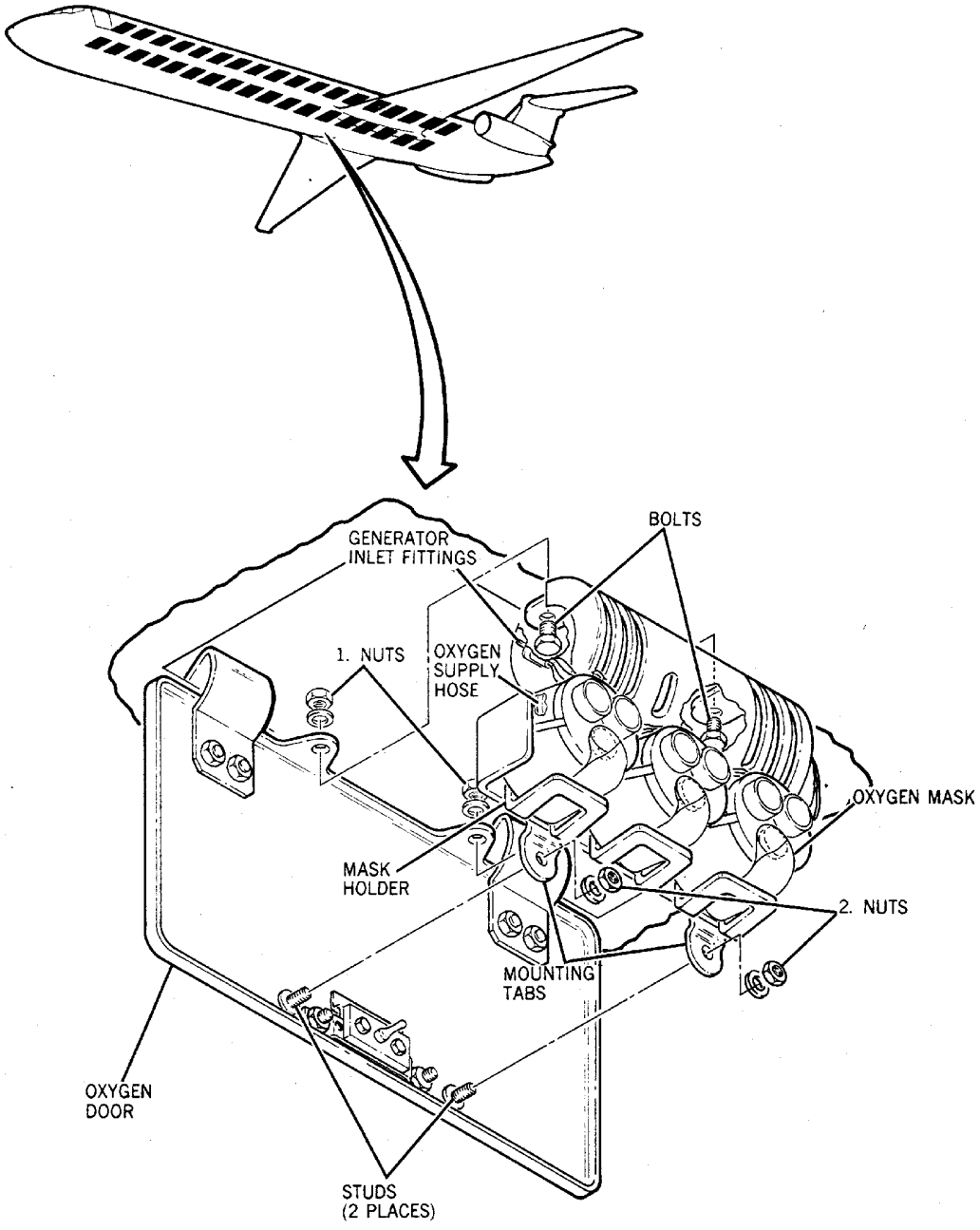
(8) Remove safety cap from generator primer and check that firing mechanism of the oxygen generator is in cocked position.

NOTE: Safety cap must be removed or generator will not fire.

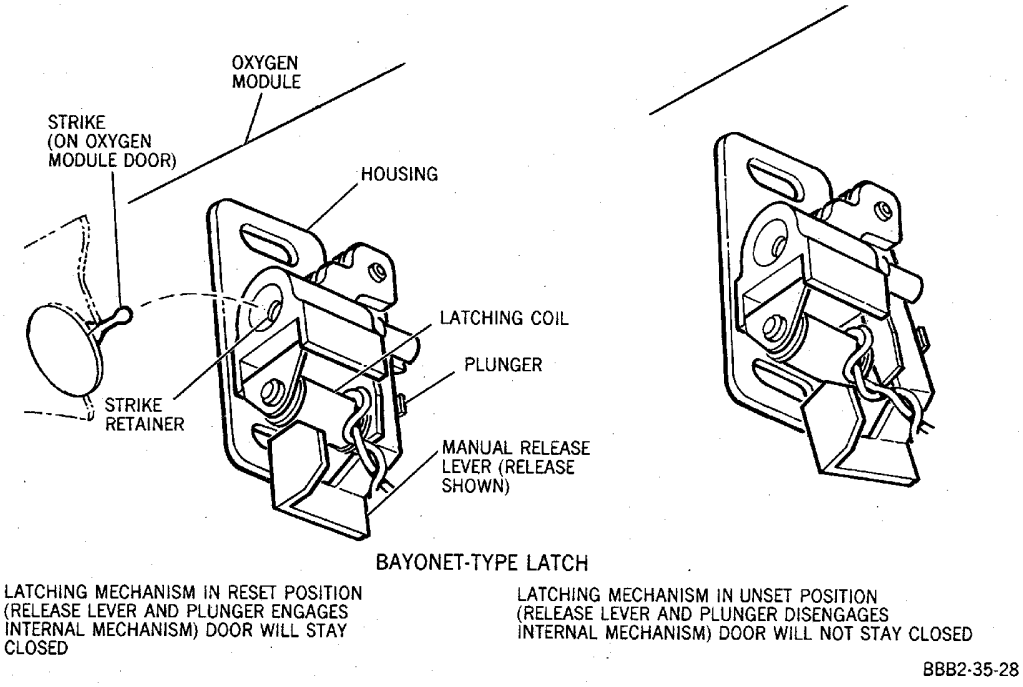
(9) Close oxygen compartment door slowly and check that latch and strike is engaged properly.

NOTE: As door is closed, door mounting latch strike will engage strike retainer and will be held in place by internal spring-loaded mechanism.

(10) Check that door closes firmly against stops.



Passenger Oxygen Insert Unit -- Removal/Installation
Figure 201/35-22-03-990-801



Door Latching Mechanism-- Reset
Figure 202/35-22-03-990-802

FIRST AID OXYGEN - DESCRIPTION AND OPERATION

1. General

A. The first aid oxygen system consists of one oxygen cylinder and one continuous-flow pressure regulator located in the first aid oxygen cylinder drawer. Four first aid outlets are located on the right side of the passenger cabin. Four first aid masks are stowed in the overhead stowage compartment above galley G5.

2. First Aid Oxygen

A. Description

(1) The first aid oxygen system is located in the passenger compartment. This system is used by the flight attendants to administer oxygen to passengers exhibiting symptoms of hypoxia or other respiratory deficiencies. This aid is available at specific locations from a gaseous, on-demand source.

(a) Oyxgen Cylinder - The first aid oxygen cylinder has a capacity of 76 cubic feet (2.15 cubic meters (m_3)) and weighs approximately 31 pounds (14.06 kg). The cylinder is charged to 1850 (+0, -20) psig 12765.0 (+0, -138.0) kPa under normal atmosphere conditions.

1) The cylinder is installed in a stowage drawer attached to the forward wall of galley G5 and is secured in a horizontal position with strap clamps. The oxygen cylinder hand valve has a cylinder pressure gage and an over-pressure rupture disc.

2) A piping system from the rupture disc will discharge oxygen overboard through a green discharge indicator mounted in the fuselage skin below the oxygen cylinder installation.

(b) Pressure Regulator - the pressure regulator is a continuous-flow type which is connected to the cylinder shutoff valve.

(c) Supply System - the supply system consists of a supply line from the cylinder regulator to the four oxygen outlets on the right side of the cabin. Two outlets each are located in the speaker panels over the fifth and seventh double seat row forward of the forward overwing emergency exit. Access to the manifold is through overhead stowage rack panels.

(d) Masks - the first aid oxygen masks are an oro-nasal type, made of plastic type rubber which forms around the mouth and nose.

The mask consists of a facepiece, three valves, economizer bag, and quick-disconnect fitting for attachment to the outlet.

1) The mask connectors are adjustable to provide for two flow rates; HI (4-litre/min) or LO (2-litre/min). When not in use, the masks are stowed in the overhead stowage compartment above galley G5.

B. Operation

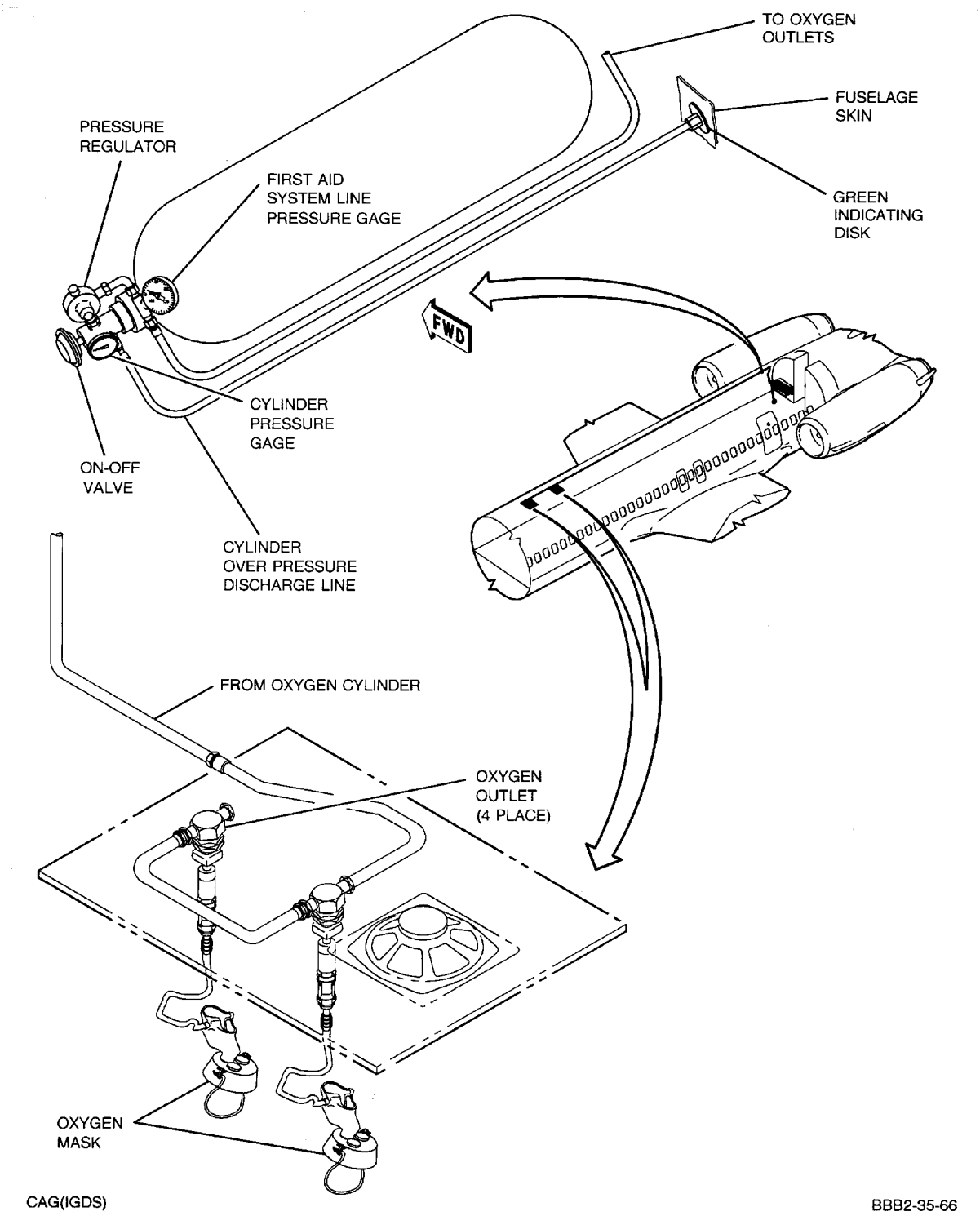
(1) Oxygen Cylinder - the oxygen cylinder stores high-pressure oxygen for first aid use. The cylinder pressure gage indicates cylinder pressure with the shutoff valve in the OPEN or CLOSED position. The frangible-type blowout disc, which is part of the hand valve, is designed to rupture and discharge oxygen overboard if cylinder pressure exceeds approximately 2650 psig (18285.0 kPa).

(2) Pressure Regulator - the pressure regulator is a continuous-flow type which is connected to the cylinder shutoff valve. Oxygen entering the regulator passes through the pressure reducer where it is regulated to an outlet system pressure of 60 to 85 psig (414.0 to 586.8 kPa) (green band), for use by the passengers. A relief valve is installed in the body of the regulator and is set to open and relieve outlet pressure when regulator inlet pressure exceeds 125(±5) psig (862.5(±34.5) kPa).

(3) Supply System - once oxygen pressure has been regulated to system pressure by the regulator, it enters the supply manifold. Oxygen passes the gage where system pressure is read. The supply system extends from the cylinder, located forward of galley G5, to the first aid oxygen outlets; two each located in the speaker panels over the fifth and seventh double seat row forward of the forward overwing emergency exit. Oxygen is dispensed from the first aid oxygen outlet when the oxygen mask is plugged into the outlet. When not in use, a spring-loaded cap prevents contamination of the oxygen outlet.

(4) Masks - oxygen is continuously supplied to the mask when connected to the first aid oxygen outlet with the cylinder shutoff valve open.

(a) When the wearer inhales, oxygen is withdrawn from the reservoir bag through the inhalation valve. Air from atmosphere will then automatically dilute the oxygen through the atmosphere valve. The atmosphere valve also permits the wearer to breathe if the oxygen supply becomes restricted. The wearer exhales through the exhalation valve.



First Aid Oxygen -- Location
Figure 1/35-25-00-990-801

FIRST AID OXYGEN - MAINTENANCE PRACTICES

1. General

A. This maintenance practice provides removal/installation, adjustment/test, and check instructions for the first aid oxygen (pressure regulator, oxygen cylinder, and mask).

B. The first aid oxygen cylinder and pressure regulator are located in the stowage drawer attached to the forward wall of galley G5. The pressure regulator shall be removed from the cylinder prior to cylinder removal. Removal of either cylinder or regulator should be performed with care by qualified personnel.

WARNING: USE EXTREME CARE TO PREVENT OXYGEN SYSTEM, OR ANY OF ITS COMPONENTS, FROM BECOMING CONTAMINATED WITH GREASE OR OIL.

C. Four first aid masks are stowed in the overhead stowage compartment above galley G5. First aid outlets are located in the speaker panels over the fifth and seventh double seat rows forward of the forward overwing emergency exit.

2. Equipment and Materials

NOTE: Equivalent substitutes may be used instead of the following listed items:

NOTE: It is possible that some materials in the Equipment and Materials List cannot be used for some or all of their necessary applications. Before you use the materials, make sure the types, quantities, and applications of the materials necessary are legally permitted in your location. All persons must obey all applicable federal, state, local, and provincial laws and regulations when it is necessary to work with these materials.

Table 201

Name and Number	Manufacturer
Bubble fluid solution (MIL-L-25567) DPM 6045	
Antiseize lubricant (Krytox 240 AC) DPM 5891	E.I. DuPont de Nemours & Co., Inc.
Test cylinder capable of maintaining minimum system pressure of 100 psig (690.0 kPa)	
Test regulator	
Test shutoff valve (2)	
Low-pressure test gage 0-100 psig (0-690.0 kPa) (capable of pressure readings in increments of 0.2 psig) (1.38 kPa)	
NOTE: Test equipment can be assembled as shown in Figure 203.	

3. Removal/Installation First Aid Oxygen

A. Remove Pressure Regulator

(1) Open cylinder stowage box and pull out drawer.

(2) Make certain that cylinder shutoff valve is closed.

(3) Bleed line pressure to atmosphere by inserting first aid mask into any first aid outlet until flow ceases.

WARNING: CAP ALL OPEN CONNECTIONS TO PREVENT DIRT, OIL, OR GREASE FROM ENTERING SYSTEM.

(4) Disconnect and cap supply hose from regulator. (Figure 201)

(5) Remove regulator from shutoff valve, cap regulator, and cylinder shutoff valve.

B. Install Pressure Regulator

(1) Remove all dust, accumulated antiseize compound, or any contaminant from cylinder fitting by wiping with lint-free dry cloth.

WARNING: KRYTOX 240AC IS AN AGENT THAT IS POISONOUS AND AN IRRITANT. MAKE SURE ALL PERSONS OBEY THE PRECAUTIONS WHEN KRYTOX 240AC IS USED.

- DO NOT USE IN AREAS WHERE THERE IS HIGH HEAT, SPARKS, OR FLAMES.
- CLOSE THE CONTAINER WHEN NOT USED.
- DO NOT GET KRYTOX 240AC IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES.
- DO NOT BREATHE THE GAS.
- DO NOT EAT KRYTOX 240AC.

WARNING: REFER TO THE APPLICABLE MANUFACTURER'S OR SUPPLIER'S MSDS FOR:

- MORE PRECAUTIONARY DATA
- APPROVED SAFETY EQUIPMENT
- EMERGENCY MEDICAL AID.

TALK WITH THE LOCAL SAFETY DEPARTMENT OR AUTHORITIES FOR THE PROCEDURES TO DISCARD THIS HAZARDOUS AGENT.

WARNING: USE EXTREME CARE TO PREVENT ANTISEIZE LUBRICANT FROM ENTERING REGULATOR FITTING PASSAGE OR CONTAMINATING FITTING SURFACE.

(2) Apply antiseize lubricant (Krytox 240 AC) sparingly to male threads only of cylinder shutoff valve regulator attachment.

(3) Install regulator on shutoff valve. (Figure 201)

(4) Connect supply hose to regulator.

(5) Push in drawer and close cylinder stowage box.

C. Remove Oxygen Cylinder

(1) Open cylinder stowage box and pull out drawer.

(2) Make certain cylinder shutoff valve is closed.

(3) Bleed line pressure to atmosphere by inserting first aid mask into any first aid valve until flow ceases.

WARNING: CAP ALL OPEN CONNECTIONS TO PREVENT DIRT, OIL, OR GREASE FROM ENTERING SYSTEM.

(4) Remove regulator from shutoff valve, cap regulator, and cylinder shutoff valve. (Figure 201)

(5) Disconnect and cap overboard discharge hose from shutoff valve.

(6) Open clamps and remove cylinder.

D. Install Oxygen Cylinder

(1) Remove all dust, accumulated antiseize lubricant, or any contaminant from all exposed fittings by wiping with lint-free dry cloth.

WARNING: KRYTOX 240AC IS AN AGENT THAT IS POISONOUS AND AN IRRITANT. MAKE SURE ALL PERSONS OBEY THE PRECAUTIONS WHEN KRYTOX 240AC IS USED.

- DO NOT USE IN AREAS WHERE THERE IS HIGH HEAT, SPARKS, OR FLAMES.
- CLOSE THE CONTAINER WHEN NOT USED.
- DO NOT GET KRYTOX 240AC IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES.
- DO NOT BREATHE THE GAS.
- DO NOT EAT KRYTOX 240AC.

WARNING: REFER TO THE APPLICABLE MANUFACTURER'S OR SUPPLIER'S MSDS FOR:

- MORE PRECAUTIONARY DATA
- APPROVED SAFETY EQUIPMENT
- EMERGENCY MEDICAL AID.

TALK WITH THE LOCAL SAFETY DEPARTMENT OR AUTHORITIES FOR THE PROCEDURES TO DISCARD THIS HAZARDOUS AGENT.

WARNING: USE EXTREME CARE TO PREVENT ANTISEIZE LUBRICANT FROM ENTERING SHUTOFF VALVE FITTING PASSAGES OR CONTAMINATING FITTING SEAL SURFACES.

(2) Apply antiseize lubricant sparingly to all male threads of shutoff valve.

(3) Position cylinder on drawer and secure with clamps. (Figure 201)

(4) Connect overboard discharge hose to shutoff valve.

(5) Connect regulator to shutoff valve.

E. Install Mask

(1) Remove mask from overhead stowage compartment and install in first aid outlet for passenger requiring oxygen. (Figure 202)

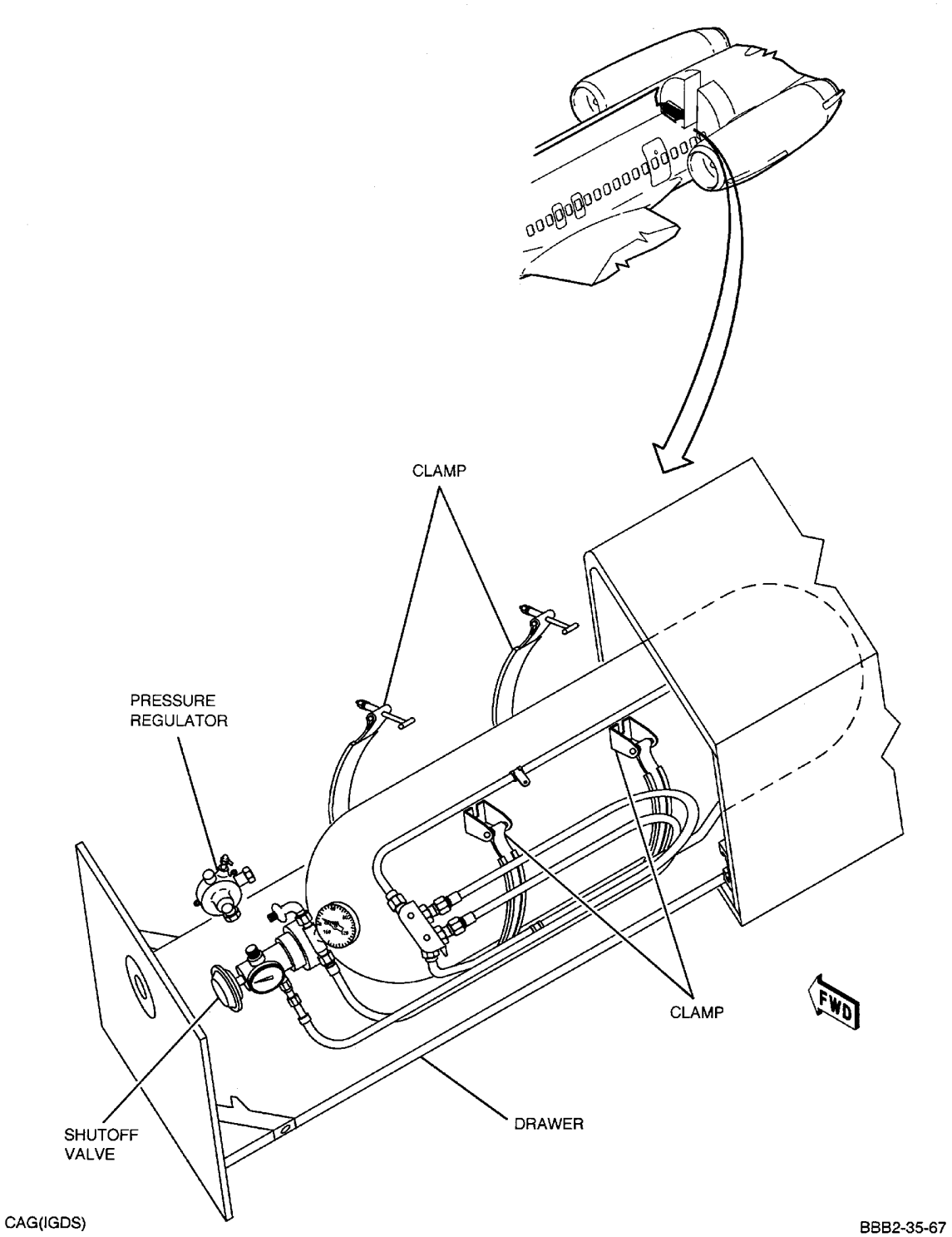
(2) Adjust fitting where mask connects to outlet to provide either two or four liter per minute flow as desired. Push in connector for HI flow and pull out for LO flow.

F. Remove Mask

(1) Turn silver sleeve on mask attachment fitting and pull out from first aid outlet. (Figure 202)

(2) Make certain that spring-loaded cap closes to prevent contaminants from entering outlet.

(3) Store mask in overhead stowage compartment above galley G5.



First Aid Oxygen Cylinder and Pressure Regulator -- Removal/Installation
Figure 201/35-25-00-990-802

4. Adjustment/Test First Aid Oxygen

A. Test First Aid Oxygen System Leakage

(1) Open first aid oxygen storage box and pull out drawer.

(2) Disconnect oxygen supply line from pressure regulator outlet. (Figure 203)

(3) Connect oxygen test apparatus to supply line outlet removed in Paragraph 4.A.(2).

(4) Open test equipment shutoff valves and pressurize oxygen system to 100 psig (690.0 kPa).

(5) Close test equipment shutoff valves when pressure equals 100 psig (690.0 kPa).

WARNING: LEAK TEST BUBBLE FLUID IS AN AGENT THAT IS AN IRRITANT. MAKE SURE ALL PERSONS OBEY THE PRECAUTIONS WHEN LEAK TEST BUBBLE FLUID IS USED.

- USE IN AN AREA OPEN TO THE AIR.
- CLOSE THE CONTAINER WHEN NOT USED.
- DO NOT GET LEAK TEST BUBBLE FLUID IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES.
- DO NOT BREATHE THE GAS.

WARNING: REFER TO THE APPLICABLE MANUFACTURER'S OR SUPPLIER'S MSDS FOR:

- MORE PRECAUTIONARY DATA
- APPROVED SAFETY EQUIPMENT
- EMERGENCY MEDICAL AID.

TALK WITH THE LOCAL SAFETY DEPARTMENT OR AUTHORITIES FOR THE PROCEDURES TO DISCARD THIS HAZARDOUS AGENT.

(6) Disconnect test cylinder supply line from shutoff valve. Apply soap bubble solution to shutoff valve to check for leakage.

(7) Compare reading of system supply pressure gage with reading of test supply pressure gage. Reading shall be within 5 psig (34.5 kPa) of test gage.

(8) Allow five minutes for temperature equalization, tap gage lightly, note pressure and temperature of system.

(9) After fifteen minutes, again check pressure and temperature. Correct pressure for changes in temperature as applicable. (Figure 204 or Figure 205)

(10) If pressure decay is noted, locate and correct leaks and repeat test.

(11) Depressurize oxygen system and remove test equipment from supply line outlet.

(12) Connect supply line outlet to pressure regulator.

(13) Check overboard discharge line by visually checking piping from rupture disc connection to aircraft skin.

B. Test Oxygen Cylinder and Pressure Regulator

(1) Check cylinder and regulator thoroughly for following:

(a) Condition of unit and connections.

(b) Security of mounting and installation.

(c) Cylinder pressure gage should indicate 1850 (+0, -20) psig (12765.0 (+ 0, -138.0) kPa) at 70°F (21.1°C) for fully charged cylinder.

WARNING: VALVE MUST BE OPENED SLOWLY TO AVOID POSSIBILITY OF FIRE.

(2) Open first aid cylinder shutoff valve.

(3) Check that system supply gage indicates 60 to 85 psig (414.0 to 586.5 kPa) (green band).

WARNING: LEAK TEST BUBBLE FLUID IS AN AGENT THAT IS AN IRRITANT. MAKE SURE ALL PERSONS OBEY THE PRECAUTIONS WHEN LEAK TEST BUBBLE FLUID IS USED.

- USE IN AN AREA OPEN TO THE AIR.
- CLOSE THE CONTAINER WHEN NOT USED.
- DO NOT GET LEAK TEST BUBBLE FLUID IN THE EYES, ON THE SKIN, OR ON YOUR CLOTHES.
- DO NOT BREATHE THE GAS.

WARNING: REFER TO THE APPLICABLE MANUFACTURER'S OR SUPPLIER'S MSDS FOR:

- MORE PRECAUTIONARY DATA
- APPROVED SAFETY EQUIPMENT
- EMERGENCY MEDICAL AID.

TALK WITH THE LOCAL SAFETY DEPARTMENT OR AUTHORITIES FOR THE PROCEDURES TO DISCARD THIS HAZARDOUS AGENT.

(4) Use bubble fluid solution to check for leaks at following connections:

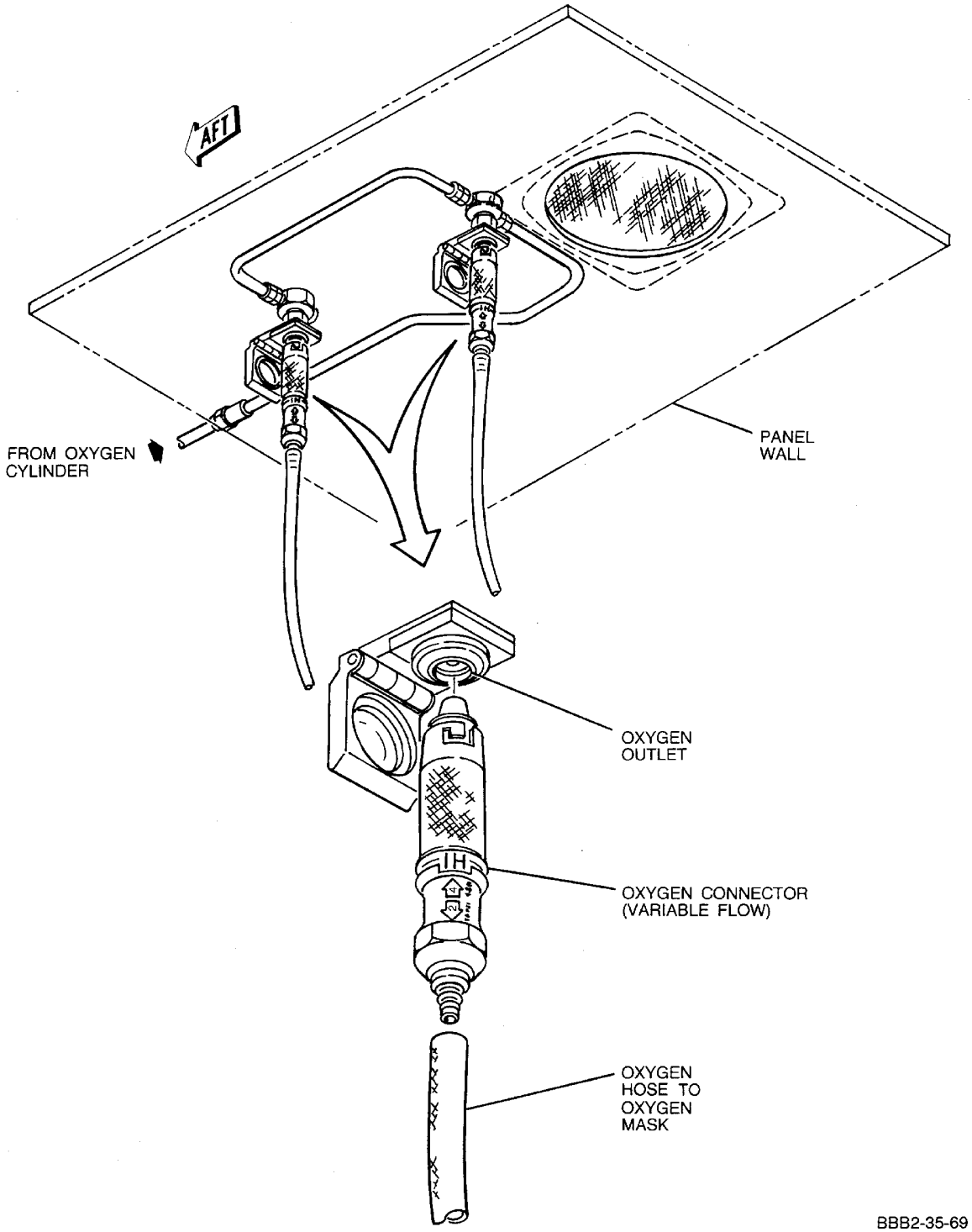
(a) Cylinder shutoff valve.

(b) Pressure regulator inlet and outlet.

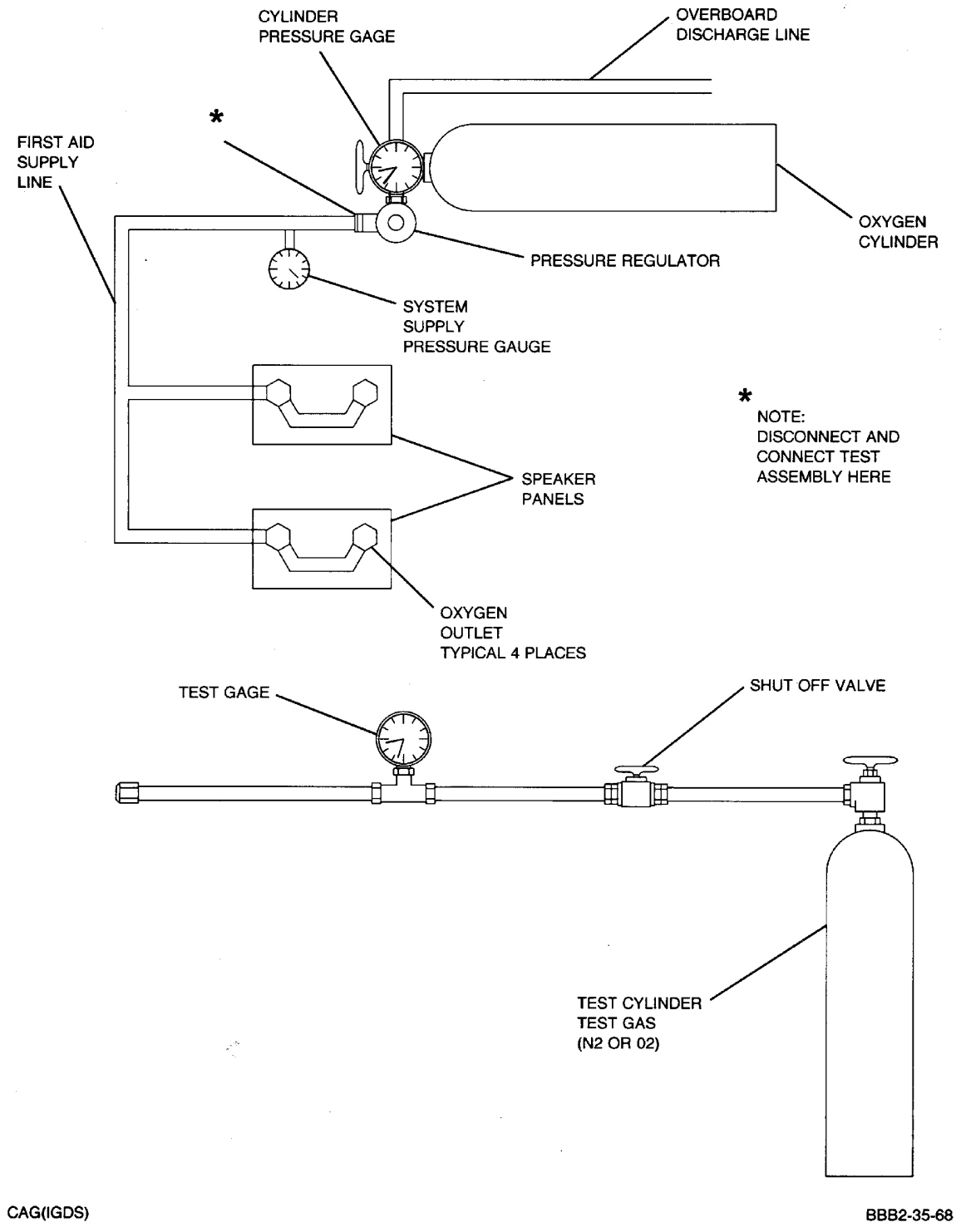
(c) System supply pressure gage fittings.

(5) Close first aid cylinder shutoff valve.

(6) Bleed system pressure by inserting first aid oxygen mask in any first aid outlet.



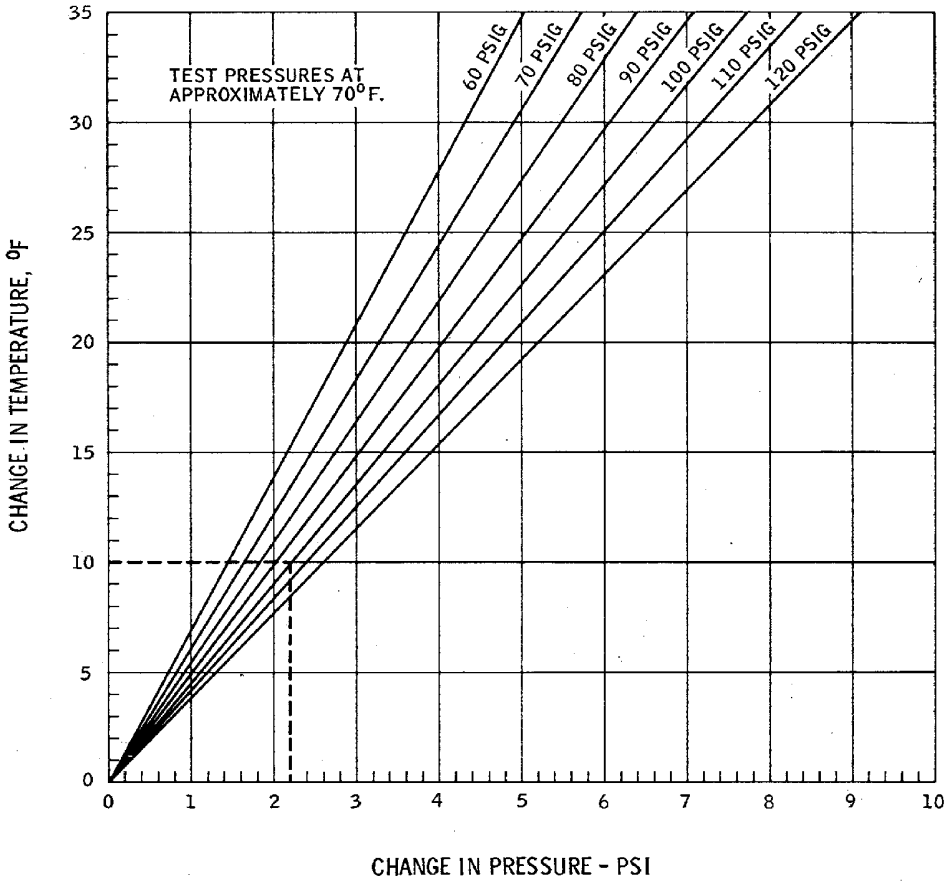
First Aid Oxygen Masks and Outlet -- Removal/Installation
Figure 202/35-25-00-990-803



Oxygen System -- Test Equipment
Figure 203/35-25-00-990-804

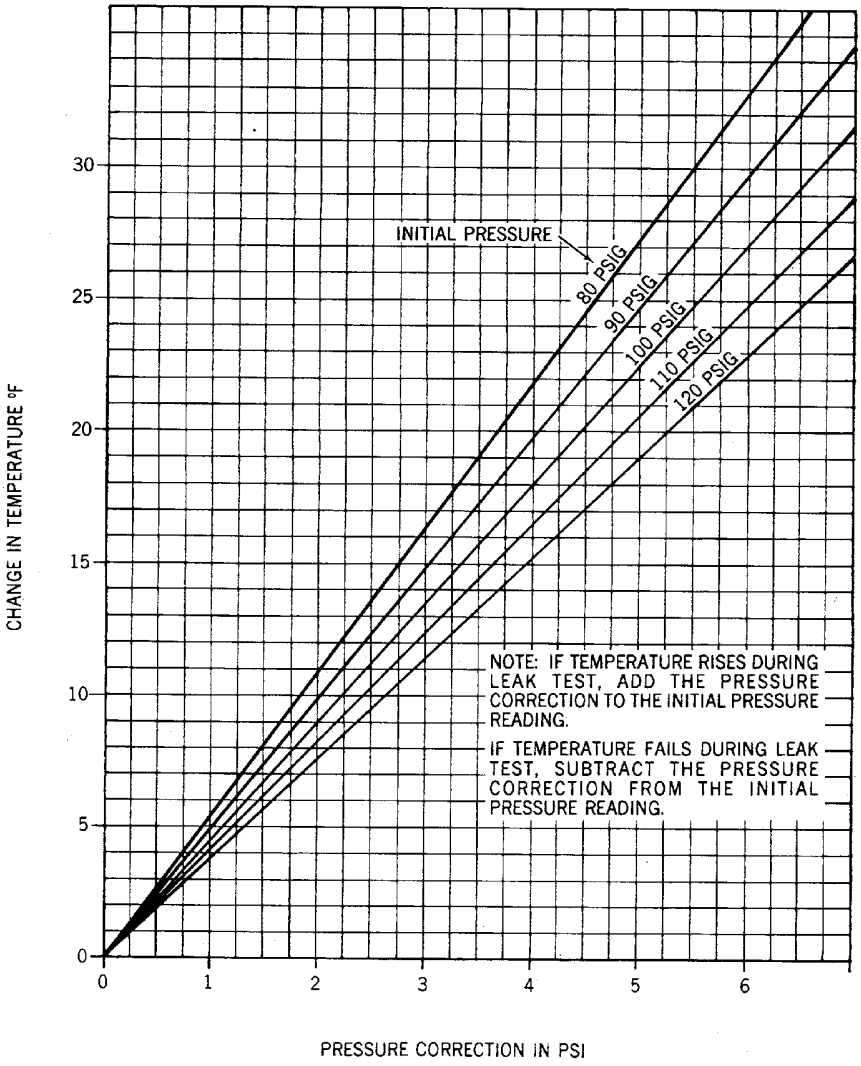
EXAMPLE: SYSTEM IS PRESSURIZED TO 100 PSIG AT 70°F. AFTER 30 MINUTES, SYSTEM PRESSURE DROPS TO 98 PSIG AND TEMPERATURE RISES TO 80°F. DETERMINE ACTUAL PRESSURE DECAY.
FOLLOW 10°F CHANGE IN TEMPERATURE LINE TO INTERSECT 100 PSIG CURVE, READ 2.2 PSI PRESSURE CHANGE. IF NO DECAY, CORRECTED SYSTEM PRESSURE WOULD BE 100 PSIG + 2.2 PSI. THEREFORE, DECAY IS 102.2 PSIG -98 PSIG, OR 4.2 PSIG PRESSURE DECAY.

NOTE: ADD PRESSURE CHANGE FOR INCREASE IN TEMPERATURE. SUBTRACT PRESSURE CHANGE FOR DECREASE IN TEMPERATURE.



BBB2-35-7

Temperature Versus Pressure Correction Curve -- Oxygen
Figure 204/35-25-00-990-805



Temperature Versus Pressure Correction Curve -- Nitrogen
Figure 205/35-25-00-990-806

5. Check First Aid Oxygen

A. Check Mask

(1) Check masks as follows:

(a) Check facepiece for holes, cuts, or tears. (Figure 203)

(b) Examine front and back valve housings for cracks, breaks, and damage to valve seats.

(c) Check economizer bag for torn or imperfect seams, holes, and mildew.

(d) Check tubing clamp for security of installation, cracks, and distortion.

(e) Check tubing for cracks and kinks.

(f) Check head strap for corroded or distorted clips, elasticity, cleanliness, and security of installation.

B. Check First Aid Oxygen Outlet

(1) Open first aid oxygen cylinder shutoff valve.

(2) Check each first aid oxygen outlet by inserting test fitting into outlet. (Figure 203)

(3) Check by feel that flow is coming out of test fitting.

(4) Close first aid oxygen cylinder shutoff valve.

(5) Remove test fitting from oxygen outlet.

(6) Using any first aid oxygen outlet and mask, conduct sniff/flow check as follows:

(a) Open first aid oxygen cylinder shutoff valve.

(b) Plug mask into first aid valve outlet.

(c) Take several breaths from mask. Flow should be obtained freely and there should be no suspicious odors.

(d) Unplug mask from first aid valve outlet.

(e) Close first aid oxygen cylinder shutoff valve.

(f) Push in drawer and close cylinder stowage box.

PORTABLE OXYGEN - DESCRIPTION AND OPERATION

1. General

A. Portable cylinders containing breathing oxygen provide mobility for the flight crew and cabin attendants in the event of low cabin pressure emergencies or can supply oxygen for first aid use. Each cylinder is equipped with a carrying strap for ease of handling. The cylinders are mounted on quick-release clamps.

2. Portable Oxygen Cylinders

WJE 401-411, 417, 419, 873-881, 883, 884, 886, 887, 892, 893

A. Crew

WJE 401-404, 873-879, 886, 887, 892, 893

(1) The crew portable oxygen cylinder is located in the flight compartment on the aft right bulkhead.The cylinder weighs approximately 10 pounds (4.54 kg) and has a capacity of 11 cubic feet (0.31 m^3).

WJE 417, 419

(2) The crew portable oxygen cylinder is located on forward face of galley G1. The cylinder weighs approximately 10 pounds (4.54 kg) and has a capacity of 11 cubic feet (0.31 m^3).

WJE 405-411, 880, 881, 883, 884

(3) The crew portable oxygen cylinder is located in the flight compartment aft of the left side console. The cylinder weighs approximately 10 pounds (4.54 kg) and has a capacity of 11 cubic feet (0.31 m^3).

WJE 401-411, 417, 419, 873-881, 883, 884, 886, 887, 892, 893

(4) The cylinder is equipped with a fill-check valve, blowout disc, pressure gage, hand-operated shutoff valve, primary pressure-demand regulator, low-pressure relief, and quick-disconnect outlet fitting.

(5) The pressure gage indicates pressure in the cylinder.

(6) To supply oxygen to the mask, the mask hose must be connected to the outlet, and the shutoff valve must be opened by turning the knob at least one-half turn.

B. Attendants/First Aid

WJE 405-411, 880, 881, 883, 884

(1) Portable oxygen cylinders are provided for use by the cabin attendants or for individual passengers who may require oxygen as first aid treatment as follows:

WJE 406-408, 411

(a) There are five cylinders that weigh approximately 5 pounds (2.27 kg) each, with a capacity of 4.25 cubic feet (0.12 m^3). Two cylinders are located in the forward right overhead stowage compartment aft of station 244, one in the right overhead stowage compartment forward of station 1154, one in the right aft overhead stowage compartment forward of station 1305 and one in the left stowage unit forward of station 1101.

WJE 405, 409, 410, 880, 881, 883, 884

(b) There are four cylinders that weigh approximately 5 pounds (2.27 kg) each, with a capacity of 4.25 cubic feet (0.12 m^3). Two cylinders are located in the right forward overhead stowage compartment, and two in the right aft stowage unit.

WJE 873, 874, 892, 893

(2) Portable oxygen cylinders are provided for use by the cabin attendants or for individual passengers who may require oxygen as first aid treatment as follows:

WJE 893

(a) There are four cylinders that weigh approximately 5 pounds (2.27 kg) each, with a capacity of 4.25 cubic feet (0.12 m^3). Two cylinders are located in the right forward overhead storage compartment, and two in the left aft stowage unit.

WJE 873, 874, 892

(b) There are seven cylinders that weigh approximately 8 pounds (3.63 kg) each, with a capacity of 7.15 cubic feet (0.20 m^3). Four cylinders are located in the right forward overhead storage compartment, aft of station 528, and three cylinders in the right overhead storage compartment aft of station 1095.

WJE 417, 419

(3) Portable oxygen cylinders are provided for use by the cabin attendants or for individual passengers who may require oxygen as first aid treatment.

(a) There are six cylinders that weigh approximately 5 pounds (2.27 kg) each, with a capacity of 4.25 cubic feet (0.12 m^3). Three cylinders are in the emergency equipment drawer in the aft right coatroom/ stowage unit, and three in the emergency equipment drawer in the forward right stowage unit.

WJE 886, 887

(4) Portable oxygen cylinders are provided for use by the cabin attendants or for individual passengers who may require oxygen as first aid treatment.

WJE 875-879

(5) Portable oxygen cylinders are provided for use by the cabin attendants or for individual passengers who may require oxygen as first aid treatment. There are four cylinders that weigh approximately 5 pounds (2.27 kg) each, with a capacity of 4.25 cubic feet (0.12 m^3). Two cylinders are located in the right forward overhead stowage compartment and two in the aft left overhead storage compartment.

WJE 401-404

(6) Portable oxygen cylinders are provided for use by the cabin attendants or for individual passengers who may require oxygen as first aid treatment. There are six cylinders that weigh approximately 10 pounds (4.54 kg) each, with a capacity of 11 cubic feet (0.31 m^3). Two cylinders are located in the left forward overhead storage compartment, one in the left overhead storage compartment forward of station 1134 and three in the right aft stowage unit aft of station 1209.

WJE 401-411, 417, 419, 873-881, 883, 884, 886, 887, 892, 893

(7) Each cylinder is equipped with a fill-check valve, blowout disc, pressure gage, hand-operated shutoff valve, primary pressure-demand regulator, low-pressure relief, orificed outlet fittings, and a passenger-type oxygen mask.

(8) The pressure gage indicates pressure in the cylinder.

(9) To supply oxygen to the mask, one of the two masks must be connected to the cylinder outlets and the shutoff valve must be opened by turning the knob clockwise at least one-half turn.

WJE 412, 414

WJE C. Attendants/First Aid

WJE (1) Portable oxygen cylinders are provided for use by the cabin attendants or for individual
WJE passengers who may require oxygen as first aid treatment as follows:

WJE (a) There are two cylinders located in the left Forward Closet Stowage, and four located in
WJE the left overhead stowage compartment forward of station 1134.

(2) Each cylinder is equipped with a fill-check valve, blowout disc, pressure gage, hand-operated shutoff valve, primary pressure-demand regulator, low-pressure relief, orificed outlet fittings, and a passenger-type oxygen mask.

(3) The pressure gage indicates pressure in the cylinder.

(4) To supply oxygen to the mask, one of the two masks must be connected to the cylinder outlets and the shutoff valve must be opened by turning the knob clockwise at least one-half turn.

PORTABLE - DESCRIPTION AND OPERATION

1. General

A. Portable cylinders containing breathing oxygen provide mobility for the flight crew and cabin attendants in the event of low cabin pressure emergencies or can supply oxygen for first aid use. Each cylinder is equipped with a carrying strap for ease of handling. The cylinders are mounted on quick-release clamps.

B. The protective breathing equipment (PBE) is designed to provide respiratory and eye protection to the user. The PBE is self-contained and provides 15 minutes of oxygen. It is intended for one time use and is not rechargeable. One (PBE) is located in the forward stowage compartment and one in the aft stowage compartment.

2. Portable Oxygen Cylinders

A. Crew

(1) The crew portable oxygen cylinder is located on forward face of galley G1. The cylinder weighs approximately 10 pounds (4.54 kg) and has a capacity of 11 cubic feet (0.31 m^3).

(2) The cylinder is equipped with a fill-check valve, blowout disc, pressure gage, hand-operated shutoff valve, primary pressure-demand regulator, low-pressure relief, and quick-disconnect outlet fitting.

(3) The pressure gage indicates pressure in the cylinder.

(4) To supply oxygen to the mask, the mask hose must be connected to the outlet, and the shutoff valve must be opened by turning the knob at least one-half turn.

B. Attendants/First Aid

(1) Portable oxygen cylinders are provided for use by the cabin attendants or for individual passengers who may require oxygen as first aid treatment.

(a) There are six cylinders that weigh approximately 5 pounds (2.27 kg) each, with a capacity of 4.25 cubic feet (0.12 m^3). Three cylinders are in the emergency equipment drawer in the aft right coatroom/stowage unit, and three in the emergency equipment drawer in the forward right stowage unit.

(2) Each cylinder is equipped with a fill-check valve, blowout disc, pressure gage, hand-operated shutoff valve, primary pressure-demand regulator, low-pressure relief, orificed outlet fittings, and a passenger-type oxygen mask.

(3) The pressure gage indicates pressure in the cylinder.

(4) To supply oxygen to the mask, one of the two masks must be connected to the cylinder outlets and the shutoff valve must be opened by turning the knob clockwise at least one-half turn.

3. Protective Breathing Equipment (PBE)

A. Description

(1) The protective breathing equipment (PBE) is a lightweight, self-contained breathing device designed to provide respiratory and eye protection to the user in oxygen-deficient, smoke-laden or other toxic atmospheres. There are two PBE's. One (PBE) is located in the emergency equipment drawer in the forward right stowage unit and one in the emergency equipment drawer in the aft right coatroom/ stowage unit. The device features a loose-fitting, universal size hood which protects the entire head. The use of the hood permits oral communication without compromising protection. A light-weight life support pack attached to the hood is worn behind the neck. (Figure 1)

B. Operation

(1) The PBE system consists of four major components: a solid state oxygen supply source; a chemical scrubber for carbon dioxide and water vapor; a loose fitting hood with a head harness and neck seal to enclose the head and provide the respirable environment; and a venturi "pumping" arrangement, powered by the oxygen generator, which recirculates the breathing gas within the system loop consisting of the scrubber and the hood. The hood serves as a counter lung to the user's respiratory system and surplus gas is vented through a protected relief valve. The PBE is supplied with its own case for safe storage. The PBE unit is intended for one time use and is not rechargeable. It is totally self-contained and provides a 15 minute supply of oxygen.

C. To Operate System

(1) Remove unit from storage container

(2) Tear off red pull strip.

(3) Remove unit from plastic protective wrapper.

WARNING: SOUND OF AIRFLOW WITHIN HOOD SIGNIFIES NORMAL OPERATION. UNIT MUST NOT BE USED UNLESS THIS SOUND IS EVIDENT. UNIT SHOULD ALSO BE REMOVED WITHIN 2 TO 3 MINUTES AFTER COMPLETION OF ITS NORMAL CYCLE INDICATED BY CESSATION OF THIS AIRFLOW NOISE.

(4) Pull actuation ring.

(5) Hold the device by the open end of the hood with the life support pack away from the user.

WARNING: ONCE PBE IS ACTIVATED, DO NOT REMOVE WHILE NEAR SPARKS OR OPEN FLAME. RESIDUAL OXYGEN MAY REMAIN IN BOTH HOOD AND HAIR AND MAY CAUSE IGNITION.

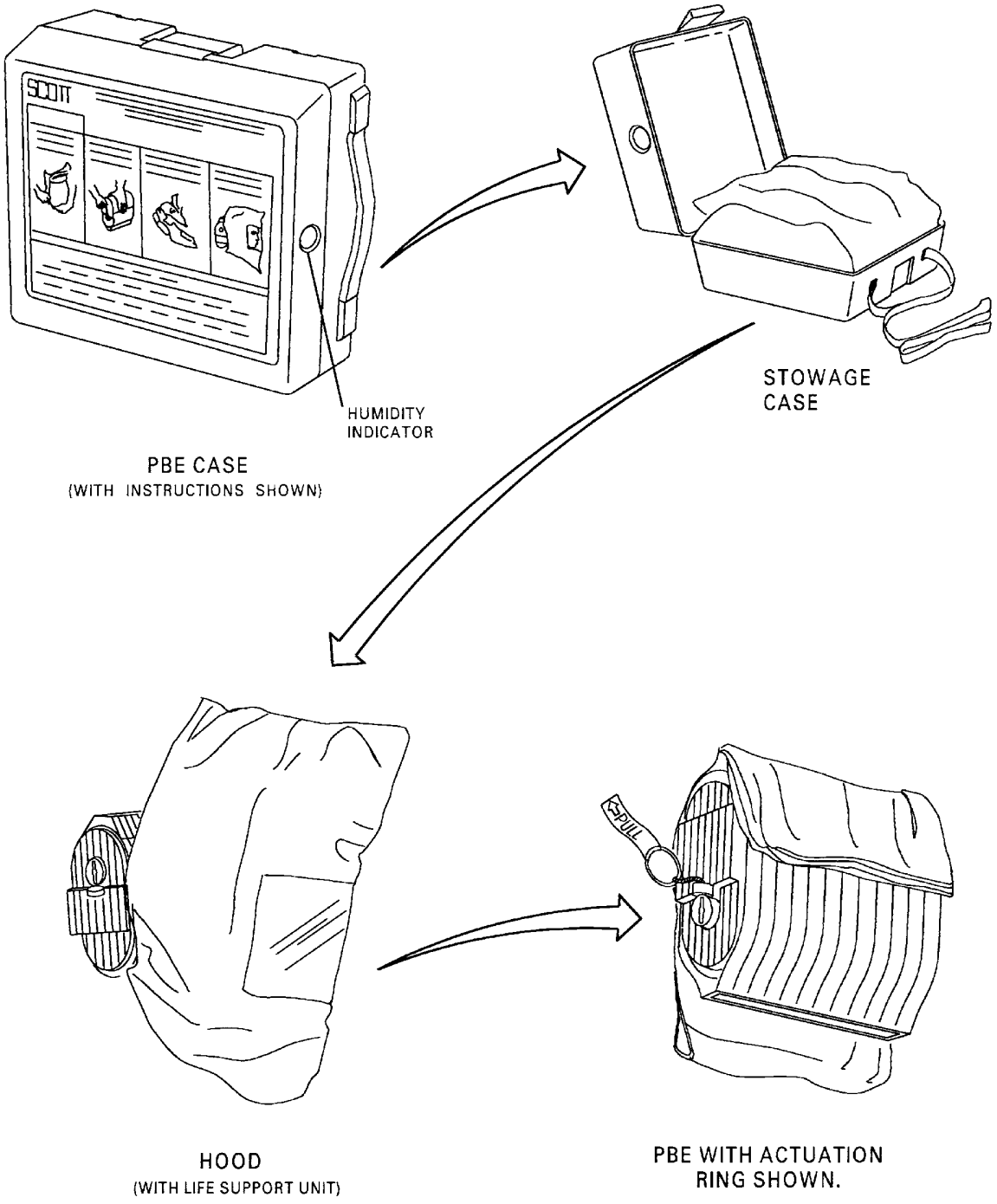
(6) Bend over and grasp hood opening with thumbs and pull hood over head.

(7) Raise to standing position and adjust hood and life support pack for most comfortable fit.

(8) Check neck seal for secure fit.

4. Maintenance Practices

A. The PBE has a 10-year storage life in sealed evacuated barrier envelope. Periodic maintenance requires visual inspection of humidity indicator through porthole in storage case. The porthole view glass, normally blue in appearance, will turn pink if humidity is present. The date of manufacture is also visible through porthole. When the PBE is placed in storage case ensure date of manufacture on blue humidity patch is visible through porthole.



Protective Breathing Equipment (PBE) - Description and Operation
Figure 1/35-30-00-990-802

PORTABLE - MAINTENANCE PRACTICES

1. General

A. Removal and installation procedures for the crew portable oxygen cylinder located in the flight compartment, and the cabin attendants portable oxygen cylinders located in the passenger compartment, are identical.

2. Equipment and Material

NOTE: Equivalent substitutes may be used instead of the following listed items:

NOTE: It is possible that some materials in the Equipment and Materials List cannot be used for some or all of their necessary applications. Before you use the materials, make sure the types, quantities, and applications of the materials necessary are legally permitted in your location. All persons must obey all applicable federal, state, local, and provincial laws and regulations when it is necessary to work with these materials.

Table 201

Name and Number	Manufacturer
Tape, self-bonding, silicone rubber DPM 5038	Permacel Div.
Gloves, cotton DPM 2714	

3. Removal/Installation Portable Oxygen Cylinder Unit

A. Remove Cylinder

CAUTION: MAINTAIN FIRM GRIP ON CYLINDER WHEN REMOVING FROM STOWED POSITION.

(1) Release clamp and remove cylinder.

(2) Remove mask from cylinder as follows:

(a) Remove tape from mask protective bag and oxygen cylinder.

(b) Remove mask from protective bag.

(c) Disconnect mask hose from oxygen cylinder HI FLOW outlet.

B. Install Cylinder

(1) Connect mask hose to oxygen cylinder HI FLOW outlet.

WJE **WJE 412, 414**

WJE NOTE: If installing second mask, ensure end fitting properly attaches to bottle.

WJE ALL

(2) Mask should be attached to cylinder as follows:

(a) Place oxygen mask in protective polyethylene bag.

CAUTION: DO NOT USE ADHESIVE TAPE TO ATTACH MASK PROTECTIVE BAG TO CYLINDER.

(b) Slightly stretch and apply tape over folded ends of mask protective bag with single complete wrap, plus 2 (+.50) inches (50.8 (12.7) mm) overlap.

NOTE: Use clean gloves when handling tape. Do not contaminate tape or application surfaces with cleaning agents or lubricants.

NOTE: Remove mylar interlayer from tape as it is being applied.

NOTE: Do not tape over mask hose.

(c) Firmly press down on overlap for secure bond. The flow hose must not contact the interior of the closet or other emergency equipment when the doors/compartments are closed.

(3) Position cylinder in holder and secure clamp. The clamp should be tight and not allow any twisting movement of the bottles.

4. Inspection/Check Portable Oxygen Cylinder Unit

A. Check Cylinder

(1) Check pressure on pressure gage. When cylinder is full, gage should indicate 1800 (± 50) psig (12411 (± 1344.7) kPa, at 70°F (21.1°C).

NOTE: The pressure gage's red band does not signify a hazardous condition. The intent is to signify that the cylinder is full.

NOTE: Pressure gage value's greater/less than those specified above are normal whenever the temperature is greater/less than 70°F.

NOTE: A minimum of 2 hours of supplemental oxygen is required on a flight of 4 hours or less. If the flight is longer than 4 hours, the quantity of oxygen necessary is higher. The quantity of oxygen necessary is based on the mid-point across the longest stretch between usual landing sites.

(2) Check security of mounting.

(a) Ensure the clamp is tight and does not allow any twisting movement of the bottles. Ensure the hose does not contact the interior of the closet or other equipment.

(3) Check condition of carrying strap, mask and hose.

(4) Check legibility of code on outlets.

PROTECTIVE BREATHING EQUIPMENT (PBE) - REMOVAL/INSTALLATION

1. General

A. This procedure contains MSG-3 task card data.

TASK 35-30-00-902-801

2. Restoration of the Protective Breathing Equipment (PBE)

A. Protective Breathing Equipment Restoration

SUBTASK 35-30-00-020-001

(1) Remove the PBE.

SUBTASK 35-30-00-510-001

(2) Route the removed PBE to shop for restoration.

SUBTASK 35-30-00-420-001

(3) Install serviceable PBE.

B. Job Close-up

SUBTASK 35-30-00-942-002

(1) Remove all the tools and equipment from the work area. Make sure the area is clean.

——— END OF TASK ———

PORTABLE OXYGEN BOTTLE - REMOVAL/INSTALLATION

1. General

A. This procedure contains MSG-3 task card data.

TASK 35-30-00-901-801

2. Discard the Portable Oxygen Bottle

NOTE: This procedure is a scheduled maintenance task.

A. References

Reference	Title
35-30-00 P/B 201	PORTABLE - MAINTENANCE PRACTICES

B. Prepare for the Discard of the Portable Oxygen Bottle

SUBTASK 35-30-00-010-001

(1) Open the applicable compartment door to access the portable oxygen bottle.

C. Discard the Portable Oxygen Bottle

SUBTASK 35-30-00-020-002

(1) Remove the portable oxygen bottle. (PORTABLE - MAINTENANCE PRACTICES, PAGEBLOCK 35-30-00/201)

SUBTASK 35-30-00-901-001

(2) Discard the portable oxygen bottle.

SUBTASK 35-30-00-420-002

(3) Install the portable oxygen bottle. (PORTABLE - MAINTENANCE PRACTICES, PAGEBLOCK 35-30-00/201)

D. Job Close-up

SUBTASK 35-30-00-410-007

(1) Close the applicable compartment door used to access the portable oxygen bottle.

END OF TASK

PORTABLE OXYGEN MASK AND HOSE ASSEMBLY - REMOVAL/INSTALLATION

1. General

A. This procedure contains MSG-3 task card data.

TASK 35-30-00-902-802

2. Restore the Portable Oxygen Mask and Hose Assembly

NOTE: This procedure is a scheduled maintenance task.

A. References

Reference	Title
35-30-00 P/B 201	PORTABLE - MAINTENANCE PRACTICES

B. Restore the Portable Oxygen Mask and Hose Assembly

SUBTASK 35-30-00-020-003

(1) Remove the portable oxygen cylinder unit. (PORTABLE - MAINTENANCE PRACTICES, PAGEBLOCK 35-30-00/201)

SUBTASK 35-30-00-902-001

(2) Route the portable oxygen cylinder unit to the shop for restoration of the mask and hose assembly.

SUBTASK 35-30-00-420-003

(3) Install serviceable portable oxygen cylinder unit. (PORTABLE - MAINTENANCE PRACTICES, PAGEBLOCK 35-30-00/201)

——— END OF TASK ———

PROTECTIVE BREATHING EQUIPMENT (PBE) - INSPECTION/CHECK

1. General

A. This procedure contains MSG-3 task card data.

TASK 35-30-00-212-801

2. Visual Check of the Personal Breathing Equipment (PBE) Seal and Expiration Date

A. Personal Breathing Equipment Seal and Expiration Date Visual Check

SUBTASK 35-30-00-212-001

(1) Check PBE expiration date. Replace PBE if 60 days remain.

(2) Do a check of the seals on the protective breathing equipment. Replace PBE with broken seals.

B. Job Close-up

SUBTASK 35-30-00-942-001

(1) Remove all the tools and equipment from the work area. Make sure the area is clean.

——— END OF TASK ———

PORTABLE OXYGEN BOTTLES AND MASKS - INSPECTION/CHECK

1. General

A. This procedure contains MSG-3 task card data.

TASK 35-30-00-212-802

2. Visual Inspection of the Portable Oxygen Bottles for Proper Pressure

A. Prepare for Visual Inspection of the Portable Oxygen Cylinder for Proper Pressure

SUBTASK 35-30-00-010-002

(1) Open the applicable compartment door to access the portable oxygen cylinder.

B. Visual Inspection of the Portable Oxygen Bottles for Proper Pressure

SUBTASK 35-30-00-212-002

(1) Check that cylinder pressure is1800 ±50 psi (12,411 ±345 kPa) at 70°F (21.1°C).

NOTE: The pressure gage's red band does not signify a hazardous condition. The intent is to signify that the cylinder is full.

NOTE: Pressure gage values greater/less than those specified above are normal whenever the temperature is greater/less then 70°F (21°C).

C. Job Close-up

SUBTASK 35-30-00-410-003

(1) Close the applicable compartment door used to access the portable oxygen cylinder.

——— END OF TASK ———

TASK 35-30-00-211-801

3. Detailed Inspection of the Portable Oxygen Masks

A. Prepare for Detailed Inspection of the Portable Oxygen Masks

SUBTASK 35-30-00-010-003

(1) Open the applicable compartment door to access the portable oxygen masks.

B. Detailed Inspection of the Portable Oxygen Masks

SUBTASK 35-30-00-211-001

(1) Do a detailed inspection of the portable oxygen masks

(a) Check each mask for damage, security, and cleanliness.

(b) Check supply hose for kinks, damage, and security.

C. Job Close-up

SUBTASK 35-30-00-410-005

(1) Close the applicable compartment door used to access the portable oxygen masks.

——— END OF TASK ———