

COCKPIT

DESCRIPTION AND OPERATION

1. GENERAL

The system consists of :

- an oxygen cylinder,
- two mask assemblies,
- a MT43 transmitter,
- a shut-off valve,
- distribution hoses and lines,
- two smoke goggles.

It also supplies the passengers compartment – refer to 35-21-00.

The system also uses the G1000 system for display – refer to 34-28-00.

2. LOCATION (Figure 1)

COMPONENT	QTY	AREA	ACCESS DOOR	REFERENCE
Oxygen cylinder	1	610	612	35-11-01
Mask assembly	2	230	/	35-11-02
MT43 transmitter	1	240	/	35-11-03
Shut-off valve	1	230	/	35-11-00
Smoke goggles	2	240	/	25-64-00

3. DESCRIPTION

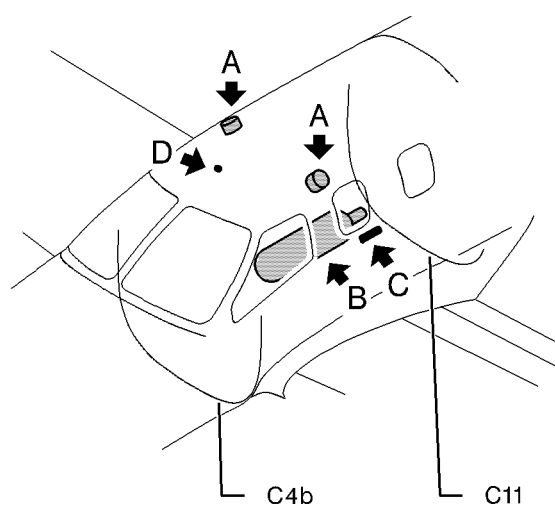
A. Oxygen cylinder

The composite oxygen cylinder has a maximum capacity of 50.3 cu. Ft (1425 liters) and a maximum pressure of 1850 psi (127.6 bar).

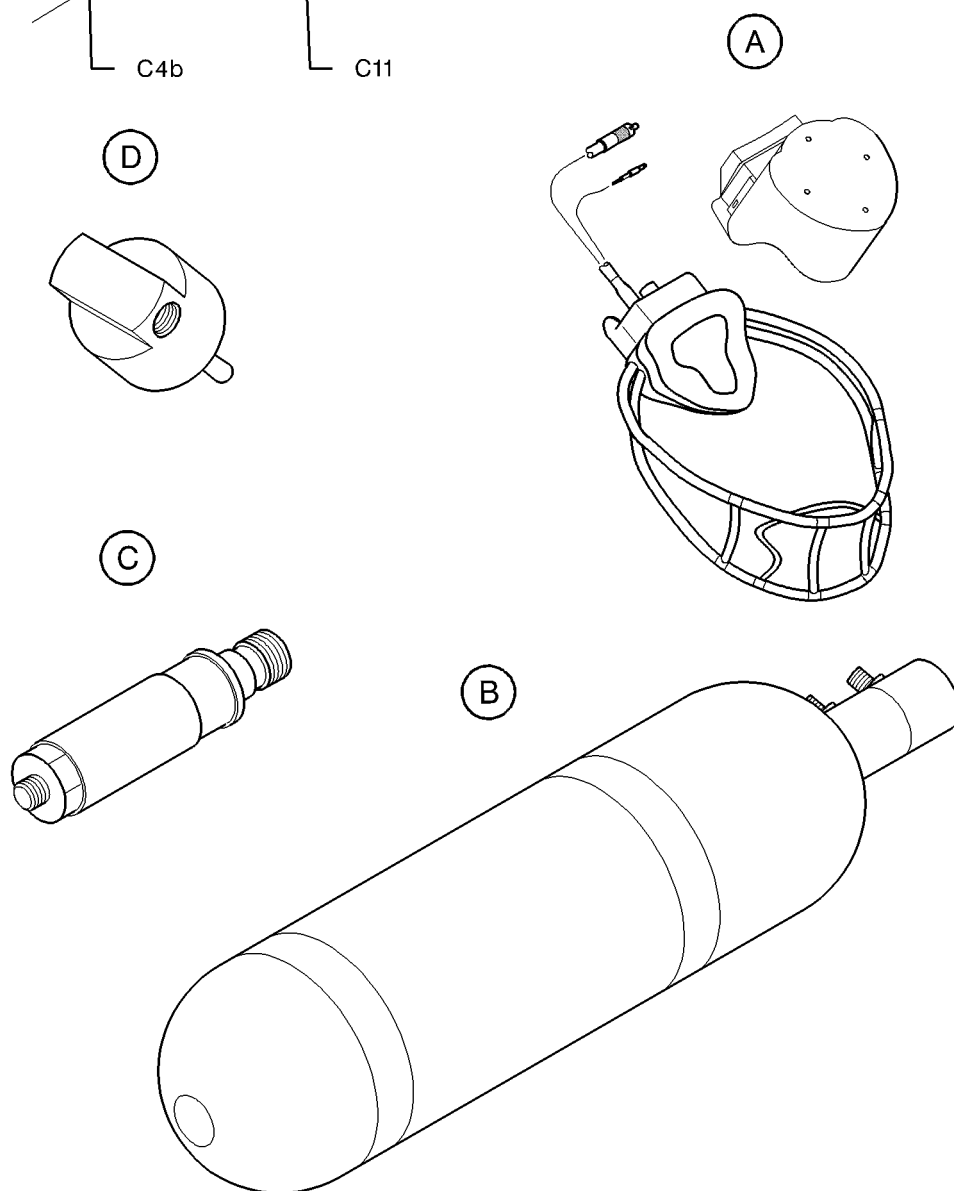
It is installed in the rear R.H. fairing outside the pressurized cabin.

The cylinder head, visible through a sight glass, is equipped with :

- a manually controlled shut-off valve to open and close the cylinder during maintenance operations,
- a microswitch which causes the "OXYGEN" message to appear in the "CAS" windows of the MFD unit (in display normal conditions). This message appears when the shut-off valve is closed,
- a pressure gage,
- a charging valve,
- an overpressure device which causes the oxygen cylinder to be discharged to the outside when pressure is within 2500 and 2775 psi (172.4 and 191.3 bar),
- a pressure reducing valve which regulates the operating pressure within 64 and 85 psi (4.4 and 5.9 bar).



- A - Mask assembly
- B - Oxygen cylinder
- C - MT43 transmitter
- D - "OXYGEN ON / OFF" shut-off valve



Cockpit - Identification and location of components
Figure 1

I4351100AAAAA1MA24100

B. Mask assembly

The single hand quick-donning demand type masks, covering both the nose and the mouth, are constantly connected to the oxygen system.

They include a microphone, a three-position selector knob ("NORMAL", "100 %" and "EMERGENCY") and a "PRESS TO TEST" pushbutton.

The masks are installed in stowage cups secured into the cabin ceiling behind the front seats.

Quick-disconnect couplings on the supply hoses and the microphone wirings ensure the oxygen masks connection and disconnection.

C. MT43 transmitter

MT43 transmitter provides G1000 system with electrical analog signal output of the oxygen quantity remaining inside the cylinder.

It is connected, on one side, to the oxygen cylinder by means of an HP capillary line and on the other side to G1000 system by means of an electrical connector.

MT43 transmitter is secured with a tightening clamp fitted on the structure between frames C10 and C11 under floor panel area.

D. Shut-off valve

The manually controlled "OXYGEN ON / OFF" shut-off valve ensures the supply of the pilot and the front passenger masks.

The shut-off valve is mounted on the cockpit headliner.

4. OPERATION

When the "OXYGEN ON / OFF" shut-off valve is set to "ON", the system supplies oxygen to the masks.

Once the pilot and the front passenger have installed their masks on their faces, oxygen flows automatically when they breathe. A flow indicator built into the masks enables the user to check that oxygen is correctly flowing to the masks.

The pilot can check oxygen level "OXY PSI" on MFD unit in normal display conditions. This level corresponds to the pressure which may vary between 200 psi (13.8 bars) and 1850 psi (127.6 bars).

The "OXYGEN ON / OFF" shut-off valve is set to "OFF" when the aircraft is on the ground.

Enabling the microphones is obtained through S124 switch – refer to 23-12-00, located on the bearing plate of the pilot's control wheel. This switch has two positions "NORM/MASK", it is kept to "NORM" position by means of a guard.