FOR TRAINING PURPOSES ONLY!

Reference to Figure 75 Crew Oxygen System Schematic

# ATA 35 OXYGEN SYSTEM

# 35-00 GENERAL

## CREW OXYGEN SYSTEM DESCRIPTION

#### **ECAM**

Oxygen parameters are indicated on the DOOR/OXY page. The oxygen pressure in the cylinder is indicated as follows:

- 0 to 400 psi in amber.
- 400 to 1850 psi in green.

An amber half frame appears when the oxygen pressure is lower than 1500 psi.

The parameter OXY turns to amber when the Crew Supply ON/OFF Switch is in the OFF position. If the oxygen pressure drops below the minimum operating pressure of ~50 psi the indication REGUL LO PR is shown amber on the DOOR/OXY page.

## Oxygen Cylinder

The high pressure oxygen cylinder is made of composite material. The cylinder has a capacity of 2183 ltr. at a pressure of 1850 psi. It contains a built in frangible disc which will burst in case of overpressure (>2500psi).

## **Crew Supply ON/OFF Switch**

The Crew Supply ON/OFF Pushbutton Switch controls the low pressure Oxygen–Supply Valve of the Flight Crew Oxygen System.

**ON:** The valve is open, low pressure oxygen is supplied to the masks. (Normal position in flight)

**OFF:** The valve is closed. The OFF light illuminates white and the OXY Indication on the ECAM DOOR/OXY page is amber.

# **Discharge Indicator**

The discharge indicator is a green blowout disc which can be seen from outside the aircraft. This disc will blow out at a pressure of 40 to 100 psig to show a yellow indicator. This shows that oxygen has been discharged.

#### PRESSURE REGULATOR/TRANSMITTER

# **High Pressure Stage**

The high pressure stage of the pressure regulator/transmitter has an integrated transducer installed. This sends an electrical signal of the oxygen pressure to the ECAM system in the cockpit.

#### Low Pressure Stage

The low pressure stage of the pressure regulator/transmifter supplies a pressure of 65 to 94 psi to the oxygen distribution system.

#### **Safety Outlet**

The low pressure safety outlet has an integrated relief valve. This limits the low pressure oxygen supply to a maximum of 175 psi.

#### **Oxygen Low Pressure Switch**

When the pressure drops below 50 psi, the amber message REGUL LO PR appears on the DOOR/OXY page below the oxygen parameter.

# PASSENGER OXYGEN SYSTEM DESCRIPTION

#### **System ON Indicator Light**

The SYS ON indicator light comes on when the emergency oxygen system is operated. It is located on the overhead panel.

#### **Altitude Pressure Switch**

When the cabin pressure decreases to a pressure equivalent of ~14000 ft. the Altitude Pressure Switch 16WR will close. This action operates the emergency oxygen system automatically.

#### Mask Manual ON Switch

The MASK MAN ON Pushbutton Switch will manually activate the passenger emergency oxygen system. A safety guard is installed over the pushbutton switch. It is used as a back–up activation of the system when the altitude pressure switch fails. This pushbutton switch will override the altitude pressure switch.

## **Fault Light**

The FAULT indicator light on the TMR RESET pushbutton switch comes on if the 30 second relays (8WR and 9WR) fail. If both time delay relays do not operate 30 seconds after the start of the system operation, the light comes on. The Reset ON Light illuminates when the TMR RESET pushbutton switch is pressed.

#### **Special Tools**

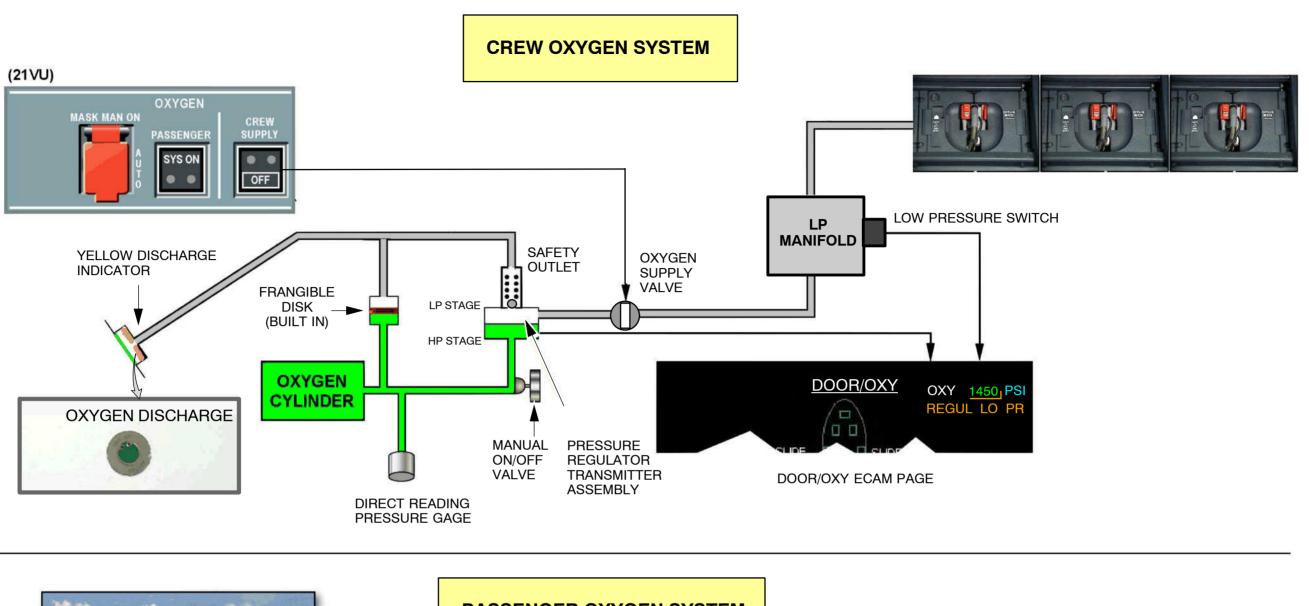
A release tool allows mechanical opening of the door in case of the container door opening system.

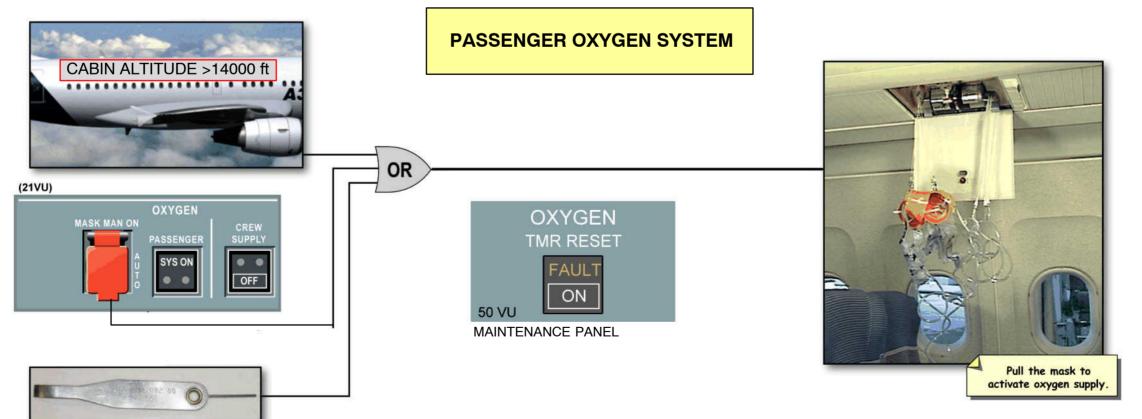
#### **Chemical Oxygen Generator**

The chemical oxygen generator is a sodium-chlorate core installed in a stainless-steel housing. The actuator of the chemical generator is a spring-loaded striker and a percussion cap installed at one end of the housing. A release pin holds the striker away from the cap. A lanyard connects the release pin to the oxygen mask. If the mask is pulled the system is activated and the internal heat starts a chemical reaction producing oxygen.

A indicator placard will change colour once the system has been activated.

35-00





MANUAL RELEASE TOOL