

# Ambulance Oxygen Supply and Management System



This Ambulance changeover system is designed to automatically switch between oxygen sources (cylinders), left and right banks, enabling a continuous flow of oxygen to patients in need during transport to medical facilities.

A touchscreen control/alarm panel monitors the gas pressure in each cylinder and shows/alerts the medical staff in case of a pressure drop and other parameters.



- **Rich interface control/alarm panel** displays data graphically and digitally, enables a precise and efficient real-time view of gas supply to patients in the ambulance.
- **Remote online monitoring of oxygen supply systems** for individual ambulances and entire fleets enhances gas utilization efficiency, resulting in significant cost savings.
- **SMS alert** when oxygen pressure reduces to a pre-set level.
- **Audio and visual alarm.**



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## The System Consists of:

- 10.1" full HD LCD touchscreen.
- Medical gas outlets (DIN, ENV, BS, Diamond, DISS).
- Gas sensors/pressure transmitters.
- Oxygen pressure regulators.
- Flexible gas hoses.
- Automatic Changeover unit including manual bypass.
- Flow selector 0-25 lpm.



- Control card/PCB.
- SMS alert sending - optional.
- Web remote view - optional.



Showing the status in the right bank - In use



Empty cylinder alert in left bank after supplying oxygen



Leak detection alert in the right bank while the left bank supplies oxygen

## Highlights

Rich interface touchscreen graphically and digitally displaying:

- Actual status of each source - "In use" or "Stand by".
- Leak detection from cylinders - in case the leak is from the standby cylinder
- Periodical maintenance alert.
- Visual & audio alarm signals in case of low pressure in change between cylinders.
- Log history file - Event logging, recording all alarms and panel activities at each cylinder.
- Gas expiration date alert - an alert for the medical gas cylinder expiration date.
- Customizable text & language - optional.
- A color trend arc showing the gas pressure status on the main line and at each cylinder.



Log History



Gas expiration date alert

## Advanced Features

- SMS messages to multiple phone numbers in case of alert when oxygen pressure reduces to a pre-set level - optional.
- **Web remote view on the internet - optional** online view accessible via a web browser. This website allows authorized users to remotely access and view the data on the alarm panel in real-time.
  - Additional data:** GPS data showing the current location of each ambulance by its number.
- Display of flow rate and consumption figures - optional



SMS alert



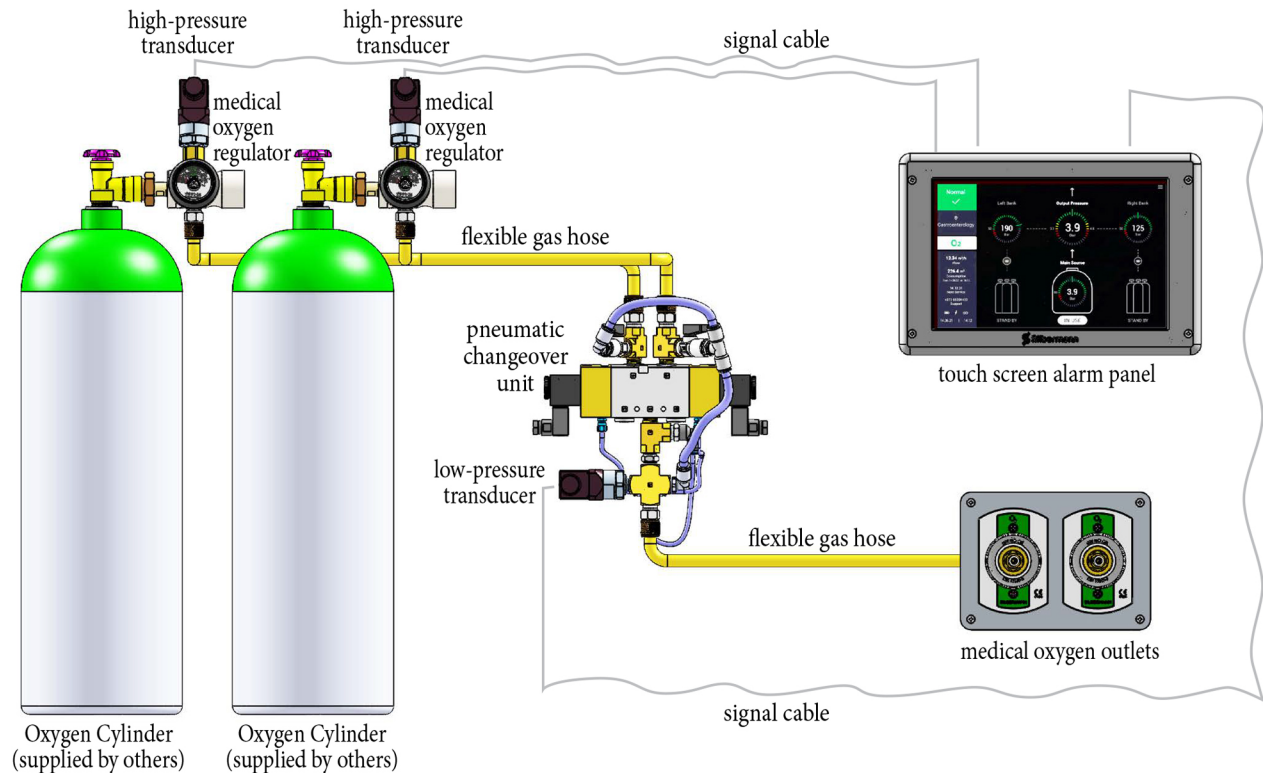
Web remote view on the internet





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## Diagram



## Advanced Communication

- TCP/IP Modbus
- Update and Upgrading of the software versions with new features is possible anytime after installation.

### Applicable Standards

ISO 10524, ISO 5359, EN-1789, NFPA99, NFPA 1917,  
EN ISO 7396

### Silbermann's Quality Management System:

ISO 9001-2015, ISO 13485-2016



 **Silbermann**  
Medical Gas Systems Since 1950

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