3.2.4 AG Tests

Leakage Test

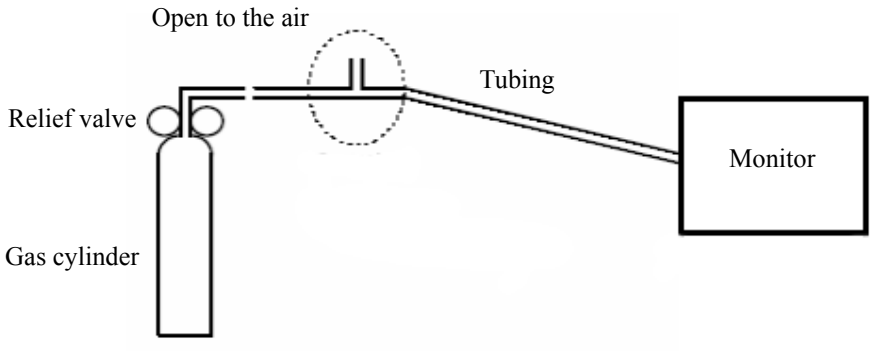
1. Plug the AG module into the module rack.
2. Wait for a minute until the AG module warmup is finished and then use your hand or other objects to completely block the gas inlet of the AG module. An alarm message [**AC Airway Occluded**] will be displayed.
3. Block the gas inlet for another 60 seconds. Then select [**User Maintenance >>**] → [**Maintain AG >>**] → [**Calibrate AG >>**] and check that the current flow rate is less than 10 ml/min. If the alarm message does not disappear, it indicates that the module does not leak.

Accuracy Test

Tools required:

- Gas cylinder with a certain standard gas (such as 6 ± 0.05% CO_2, Bal N_2), or standard gas mixture. Gas concentration should meet the following requirements : AA ≥ 1.5%, CO_2 ≥ 1.5%, N_2O ≥ 40%, O_2 ≥ 40%, of which AA represents an anesthetic agent (Des, Sev, Enf, Iso, or Hal). a/c ≤ 0.01 (a is the gas absolute concentration accuracy; c is the gas concentration)
- T-shape connector
- Appropriate tubing

1. Plug the AG module into the module rack.
2. Wait for at least 10 min and then perform a leakage test to make sure the airway has no leakage.
3. Check if the fan inside the AG module works correctly.
4. Connect the test system as follows:



5. Adjust the relief valve and make sure the flowmeter reading is stable and within 10 and 50 L/min.
6. Check that the concentration of each composition meets the specification stated in the Operator's Manual.

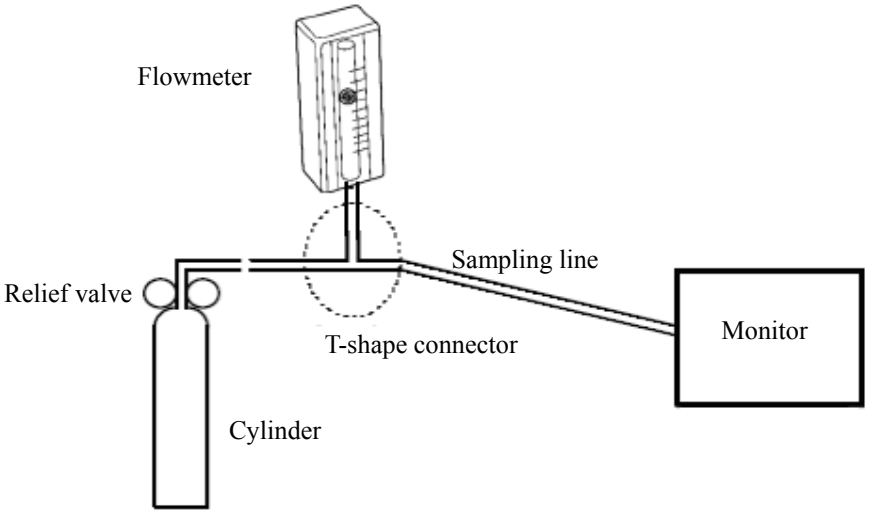
Calibration

Tools required:

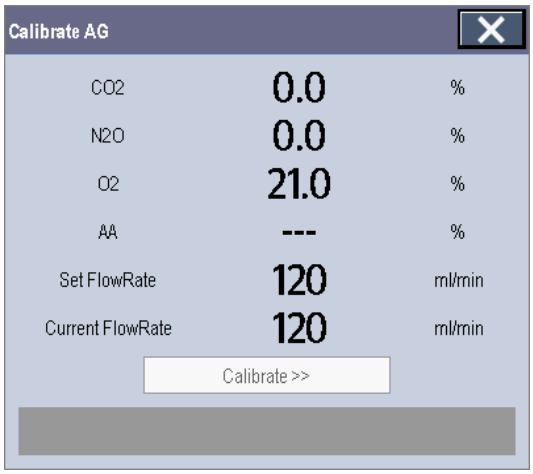
- Gas cylinder with a certain standard gas (such as 6 ± 0.05% CO_2, Bal N_2), or standard gas mixture. Gas concentration should meet the following requirements: AA ≥ 1.5%, CO_2 ≥ 1.5%, N_2O ≥ 40%, O_2 ≥ 40%, of which AA represents an anesthetic agent (Des, Sev, Enf, Iso, or Hal). a/c ≤ 0.01 (a is the gas absolute concentration accuracy; c is the gas concentration)
- T-shape connector
- Appropriate tubing

Follow this procedure to perform the pressure calibration:

1. Select [**Main Menu**]→ [**Maintenance >>**]→ [**User Maintenance** >>]→ enter the required password→ [**Calibrate AG >>**] to access the [**Calibrate AG**] menu.
2. Check the airway and make sure that there are no occlusions or leaks.
   - Vent the sampling tubing to the air and check if the [**Current FlowRate**] and [**Set FlowRate**] are approximately the same. If the deviation is great, it indicates that there is an occlusion in the tubing. Check the tubing for an occlusion.
   - Check the airway and make sure that the airway has no leakage.
3. Connect the test system as follows:



4. Open the relief valve and vent a certain standard gas or gas mixture. Then adjust the relief valve and make sure the flowmeter reading is stable and within 10 and 50 L/min.
5. In the [**Calibrate AG**] menu, the concentration and flowrate of each measured gas are displayed.
   - ◆ If the difference between the measured gas concentration and the actual one is t very small, a calibration is not needed.
   - ◆ If the difference is great, a calibration should be performed. Select [**Calibrate >>**] to enter the calibrate menu.



6. Enter the vented gas concentration. If you use only one gas for calibration, set other gases' concentration to 0.
7. Select [**Start**] to start calibration.
8. If the calibration is finished successfully, the message [**Calibration Completed!**] is displayed. If the calibration failed, the message [**Calibration Failed!**] is displayed. In this case, perform another calibration.

⚠CAUTION

- **Calibrate the O_2 module, If it has been transported for long distance.**

3.2.5 Preventative maintenance test report

Customer name	
Customer address	
Servicing person	
Servicing company	