Maintenance and cleaning instructions

Cleaning

Exterior

1. Disconnect hoses and filters
2. Wipe the outside of the cabinet with a damp clean cloth. Light solvents and detergents may be used

Interior

1. Clean the exterior, do not connect hoses until interior cleaning is complete
2. Connect a 22mm hose to the expiration connector on the front of the unit
3. Connect the expiration connector at the rear of the unit to a watertight receptacle
4. If a flow sensor is fitted to the expiration channel (this is an optional extra), then this sensor must be removed prior to the following step. Also prior to the following step, screw the supplied blind fitting in place of the flow sensor.
5. Flush ten (10) litres of water-disinfectant solution through, from the front to the rear, of the expiration channel
6. NEVER FLUSH LIQUIDS THROUGH THE INSPIRATION SIDE OF THE MACHINE.

Maintenance

1. The filters and humidifier are external to the unit and should be maintained/replaced as required by the manufacturer
2. The 12v solenoids should be replaced every 4000 hours.

Validation Test

This test should be conducted on a minimum of a monthly basis. This test ensures that the machine is running consistently and accurately.

1. Setup

   a) Connect the machine to pressurised oxygen and air supplies. Leave outlet of expiratory unconnected.

b) Connect auxiliary pressure gauges to the inspiratory outlet (patient end) and expiratory inlet (patient end).

c) Connect inspiratory and expiratory lines to y connection and then to a dummy set of lungs that can provide compliance.

2. Pressure Set Point Testing

a) Run the system at the IP and PEEP set points outlined in the table below. Fill in the table recording the results of the tests. Record IP and PEEP both from the output graphs and from the auxiliary gauges.

IP Set-Point (cmH20)	PEEP Set-Point (cmH20)	IP from aux gauge (cmH20)	Percentage difference from set point (%)	PEEP fro-maux gauge (cmH20)	Percentage difference from set point (%)	IP from graph (cmH20)	Percentage difference from aux gauge (%)	PEEP from graph (cmH20)	Percentage difference from aux gauge (%)	Tidal Volume from graph (ml)	Notes
40	20										
35	15										
30	10										
25	5										
20	0										

1. FiO2 Set Point Testing

a) Run the system at the FiO2 set points outlined in the table below. Fill in the table recording the results of the tests.

IP Set Point (cmH20)	PEEP Set Point (cmH2O)	FiO2 Set Point (% O2)	FiO2 Recorded from graph (% O2)	TV recorded from graph (ml)	Notes
40	20	20			
40	20	30			
40	20	40			

40	20	50
40	20	60
40	20	70
40	20	80
40	20	90
40	20	100

1. B.P.M Set Point Testing

   a) Run the system at the B.P.M set points outlined in the table below. Fill in the table recording the results of the tests.

IP Set Point (cmH20)	PEEP Set Point (cmH2O)	B.P.M Set Point	B.P.M Recorde d from graph	Percent age differe nce from set point to recorde d B.P.M (%)	TV recorde d from graph (ml)	Notes
40	20	5				
40	20	10				
40	20	15				
40	20	20				
40	0	5				
40	0	10				
40	0	15				
40	0	20				