



Servicing Instructions

Therapy Equipment Pipeline Suction Range

Revision 5 : June 2013

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Record of Permanent Revisions

Retain this record at the front of the Manual. On receipt of Revision, revise as detailed in the Letter of Transmittal and record the incorporation of the revision on this sheet.

Rev. No.	Issue Date	Date Inserted	By
3	Sept 2010	7/9/10	Steve Munn
4	November 2011 (O Ring No. change)	3/11/11	Steve Munn
5	June 2013 (BSI Logo Change)	24 th June 2013	Steve Munn

Product Information – Pipeline Suction Range

Function

The function of the Pipeline Suction Controller is to provide a controllable Suction level from a piped Vacuum Supply.

The unit should be operated and stored in a dry clean environment within the temperature range of -10°C to +40°C.

Types

High Suction	-	Vacuum 0 to -80kPa (-625mmHG) Flowrate at full Vacuum ≥ 35 Litres per Minute
Low Suction	-	Vacuum 0 to -20 kPa (-150mmHG) Flowrate at full Vacuum ≥ 20 Litres per Minute
Thoracic Suction	-	Vacuum 0 to -4 kPa (-40cmH2O) Flowrate at -7kPa ≥ 15 Litres per Minute

Technical Specification

Inlet Connection	-	British Standard Probe
Constitutional Materials	-	Stainless Steel Probe Brass Internal Control Shaft and Adjustment Nut Polycarbonate Main Body/Control Knob Polysulphone On/Off Tap Nitrile O Rings Stainless Steel Jet Polycarbonate Pipeline Protector Stainless Steel Springs

Approval/Warranties

The Therapy Equipment Pipeline Suction range fully complies to the requirements of ISO 10079-3:2000 (Medical Suction equipment – Suction equipment powered from vacuum or pressure source) and is CE Marked in accordance with current European legislation.

All Pipeline Suction Controllers carry a 7 Year Function Warranty

Pipeline Protector

The function of the Pipeline Protector is to protect the Hospital Vacuum Pipeline from contamination.

It contains a Hydrophobic Filter, which is designed to shut off the Suction Flow when it comes into contact with fluid, thereby preventing the fluid from entering the Pipeline.

In addition to the Pipeline Protector requiring immediate replacement, it becomes wet or discoloured, it is recommended that the Pipeline Protector be replaced on a regular basis, depending on how regularly the unit is used:

High Usage e.g. ITU, HDU etc	-	Every 3 months
Low Usage e.g. Wards etc.	-	Annually

The Pipeline Protector does not carry any moving parts, and the whole bayonet fitting bowl area is designed to be a consumable part.

We have also had the filter tested for Bacterial Filtration Efficiency (BFE), and would confirm that in our tests, the filter had a BFE in excess of 99.5%.

Finally, it should be confirmed that whilst the Pipeline Protector will fit the Thoracic Suction Controller, it should not be used with this device due to the restriction on flow rate. On the Thoracic Suction Controller only, the Filter Bowl, with Bacteriological Filter (4701-12) should be used. The High and Low Suction are fully suitable for use with the Pipeline Protector.

Annual Function Test Requirements

Frequency

Annually or in accordance with the Hospital Policy

Objective

To ensure that the unit is in an accurate working condition and leak free

Precaution

It is **strongly** advised that protective gloves be worn before any servicing is carried out on Medical Devices

Procedure

Leak Test Procedure

1. Connect the Suction Controller to the Suction Pipeline and turn the ON/OFF Tap downwards 180° so that the green ON is showing
2. Occlude the outlet of the Pipeline Protector, so that the Suction is contained
3. Turn the Control Knob clockwise to MAXIMUM
4. Wait for the gauge to stop at its maximum setting, and turn the Control Knob anti-clockwise to MINIMUM.

High Units	-	The Gauge should remain steady for 5seconds
Low & Thoracic Units	-	A drop over the complete scale taking approximately 30 seconds or more is acceptable

Function Test Procedure

1. Connect the Suction Controller to the Suction Pipeline and turn the ON/OFF Tap downwards 180° so that the green ON is showing
2. Turn the Control Knob clockwise to MAXIMUM, and connect a 1.8L Receiver Jar to the Pipeline Protector
3. Occlude the Patient Outlet on the Receiver Jar.

High Units	-	Gauge should register -400mmHG within 4 secs.
Low Units	-	Gauge should register -150mmHG within 4 secs.
4. Replace Pipeline Protector
5. Apply a Function Check label, and record Serial Number, and location

Strip Down Maintenance Instructions

Frequency

Strip Down Maintenance should not be necessary on the Therapy Equipment Pipeline Suction Range. Any functional fault found within the first 7 Years of Purchase is covered under the Warranty, and the product should therefore be returned to the manufacturer for a warranty repair.

The warranty does not however cover accidental damage.

Objective

To replace all broken/perishable parts, and retest to ensure the unit is functioning correctly and leak free.

Precaution

It is **strongly** advised that protective gloves be worn before any servicing is carried out on Medical Devices

Procedure

1. Remove and dispose of the Pipeline Protector (4900).
2. Set the Control Knob to MINIMUM and using a 2mm Allen Key undo the two Grub Screws (4701-44) on the side of the Control Knob (4701-03).
3. Remove the Name Label (4701-34) from the top of the Controller to expose the six screws (4701-35).
4. Remove the six screws (4701-35) and carefully remove the top assembly away from the Main Body (4701-05).
5. Remove the Pin (4701-50) and pull out the Integral Probe (4701-01) from the Main Body. Replace if necessary.
6. Replace the O Ring (4701-02) and re-fit the probe back into the Main Body.
7. Re-fit the Top Assembly back onto the Main Body and re-fit the six screws.
8. Re-fit Name Label Ring (4701-34).

9. Re-fit the Control Knob by fastening the two Grub Screws on the side of the Control Knob, ensuring that the Knob is in the MINIMUM setting beforehand.
10. Turn the unit upside down and remove the four screws (4701-35) situated on the bottom of the unit.
11. Remove the Jar Top (4701-08) from the Main Body (4701-05)
12. Using a pair of long nose pliers remove the Pin (4701-17) that holds the ON/OFF tap (4701-16) in place.
13. Remove the ON/OFF tap (4701-16) and replace the O Rings (4701-85; 4701-54; 4701-64) making sure to apply some Kilopoise 0001G lubricant to the O Rings.
14. Re-fit the Pin (4701-17) making sure that the rolled edge is facing away from any plastic faces.
15. Replace the O Ring Main Body Seal (4701-07)
16. Replace the small O Ring in the Main Body (4701-54)
17. Replace the Pipeline Protector O Ring (4701-10)
18. Re-fit the Jar Top (4701-08) to the Main Body (4701-05) using the four screws (4701-35)
19. Remove the Gauge (4701-19) and replace if necessary. Replace the Gauge O Ring (4701-18)
20. Re-fit a new Pipeline Protector (4900)

Low/Thoracic Units

A majority of the parts noted above are common, however care should be exercised to ensure that the specific Low or Thoracic parts are replaced if necessary. Unless damaged, there should be no need to alter/adjust the Relief Valve.

Testing

Connect the Pipeline Suction Controller to a Vacuum Outlet, and repeat procedure as per *Annual Function Test Procedure*.

Accuracy

The unit is accurate to the requirements of 10079-3:2000. Unless the Gauge is damaged, there should be no need to regularly check the unit for Suction level accuracy.

Exploded Drawing

