



Series **Gen 1 Blower**
AKA Gen 1 on demand

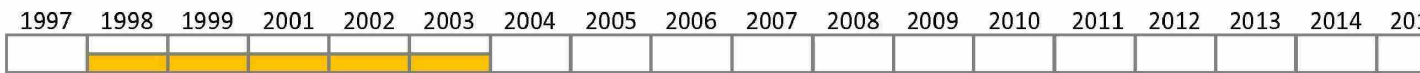
Version V1

Feature Blower, rocker switch
2 port, 4 port

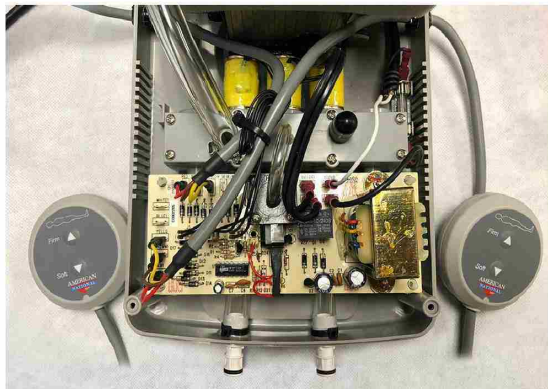
Hardware round remote, rocker switch
No shutoff switch, button

Software On Demand

Sales Jan 1998 – Dec 2000



- The entire control unit was supplied to us by 9th Wave in Connecticut.
- The blower controllers were produced and sold in a two port version (one hose per side of a dual chamber mattress) and a 4 port version (two hoses per side in a dual chamber mattress allowed for separate mid body adjustment and shared head/foot adjustment on each side of the mattress).
- This controller utilized a motor inside the housing attached to a fan which directed air in to an open area and when the solenoid was energized it opened and allowed air to pass through the port.
- This was an on demand controller that had no memory settings or pressure sensors.
- This controller could not over pressurize the chambers because it could not generate pressure in excess of 1 psi.
- The hard wired remotes utilized a rocker switch to inflate and deflate the chambers. There was one rocker switch per remote for the two hose version and two rocker switches per remote for the four hose version.



Series **Gen 1 Pump**
AKA Gen 1 on demand

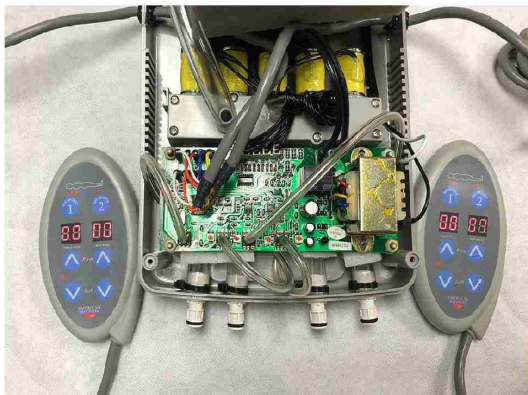
Version V1
Feature Compressor

Hardware round remote, membrane
Shutoff switch
Software On Demand / no sensors

Sales Apr 2001 – Dec 2001

1997	1998	1999	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015

- 50 lpm compressor.
- The PCB was from Arco as well as the manifold and the solenoids were from Hope.
- This manifold was a **pre-existing** manifold from Apollo and we had to plug one port as you can see from the picture and then we had to add a piece of tubing to go from the top of the manifold to the pressure switch.
- These were direct drive controllers meaning when a button was pressed and held down the pump would turn on and add air the entire time the inflate button was held down until it reached 1 psi and then the mechanical pressure switch would cut off the power to the compressor. This was a pressure switch not a pressure transducer.
- We purchased these outer housings from 9th Wave and drilled all the holes in them and then did all the assembly in Corona, CA. This same housing was used on a medical pump that was produced by 9th Wave.
- The Gen 1 on demand pump controllers were produced and sold in a two port version (one hose per side of a dual chamber mattress) and a 4 port version (two hoses per side in a dual chamber mattress allowed for separate mid body adjustment and shared head/foot adjustment on each side of the mattress).
- This was an on demand controller that had no memory settings or pressure sensors.
- The hard wired remotes utilized a membrane switch to inflate and deflate the chambers. There was two membrane switches per remote for the two hose version and four membrane switches per remote for the four hose version.



Series Gen 2 Pump

AKA Gen 1 digital

Intelligent Air Techn

Version **V1** (original)

Feature Compressor

Hardware Round or elliptical r
buttons, Arco/Rimco
transducers

Software Arco

Sales Dec 2003 – *estimate,

System does not go back th
on our 2004 pricelist.

1997	1998	1999	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
						*											

- Hardwired remotes and power cord. Available with no memory that had a membrane switch or a memory remote that had a numeric pressure setting.
- The PCBA was from Arco as well as the Manifold.
- This manifold was a pre-existing manifold and we had to plug a few ports as you can see from the picture and then we had to add a piece of tubing with a branch Y that sits under the PCB between the manifold and the front of the housing to allow the pressure sensor line to connect to the transducer.
- We purchased these outer housings in the USA and drilled all holes in them and then did all the assembly in Corona, CA. This same housing was used on a medical pump that was produced by 9th Wave (Ed Gilchrest).
- These controllers had a real time pressure display and we produced them in a 2 port and a 4 port version

- These were direct drive controllers meaning when you pressed and held down the pump would turn on and when the time the inflate button was held down. While the pump was running the number on the remote would jump all around and when you released the inflate button a real time pressure display would be displayed. As the pressure starts to increase the display would continue to hold the inflate button down the display would turn off intermittently because it would think it was not full and allow the compressor to turn off the compressor so it could take a pressure reading. When you would realize it was not full and allow the compressor to turn on again and this would continue to occur until the pressure reached the maximum setting of 40 mmHg.
- The controller also had two memory settings per port. When you saved your favorite setting and you pressed the memory setting you could simply press the memory button and the display would automatically go to that new "target setting". When you pressed the way to the target setting it would then periodically so it could take a pressure reading and release air a little at a time in order to move the pressure ultimately reach it.



Series Gen 2 Pump

AKA Gen 1 digital

Intelligent Air Techn

Version **V2**

Feature Compressor

Hardware Round or elliptical r
buttons, Arco/Rimco
transducers

Software Arco

Sales 2004 – 2006

1997	1998	1999	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015

- Detachable wired remotes and power cord. Available with no memory that had a membrane switch or a memory remote that had a numeric pressure setting.
- The PCBA was from Arco as well as the Manifold
- This manifold was a pre-existing manifold and we had to plug a few ports as you can see from the picture.
- We redesigned these outer housings to accept a new molded insert in the front of the pump housing. This molded part which mated to the quick connector from the chambers also had a tap on it for the pressure sensor line and this insert connected to the manifold with short pieces of tubing.
- These controllers had a real time pressure display and we produced them in a 2 port and a 4 port version.

- These were direct drive controllers meaning when the inflate button was pressed and held down the pump would turn on. When the inflate button was released the number on the remote would jump all around. When the inflate button was pressed again the number would continue to increase and the pump would continue to hold the inflate button down the number would continue to increase and the pump would turn off intermittently because it would think it was full. When the inflate button was pressed again the pump would turn off the compressor so it could take a pressure reading. When the inflate button was pressed again the pump would realize it was not full and allow the compressor to run again and this would continue to occur until the pump reached the maximum setting of 40 mmHg.
- The controller also had two memory settings per port. When you saved your favorite setting and you pressed the memory setting you could simply press the memory button and the controller would automatically go to that new "target setting" and when the pump reached the target setting it would then again stop and allow the pump to take a pressure reading and then add a delay time in order to move towards the target and

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