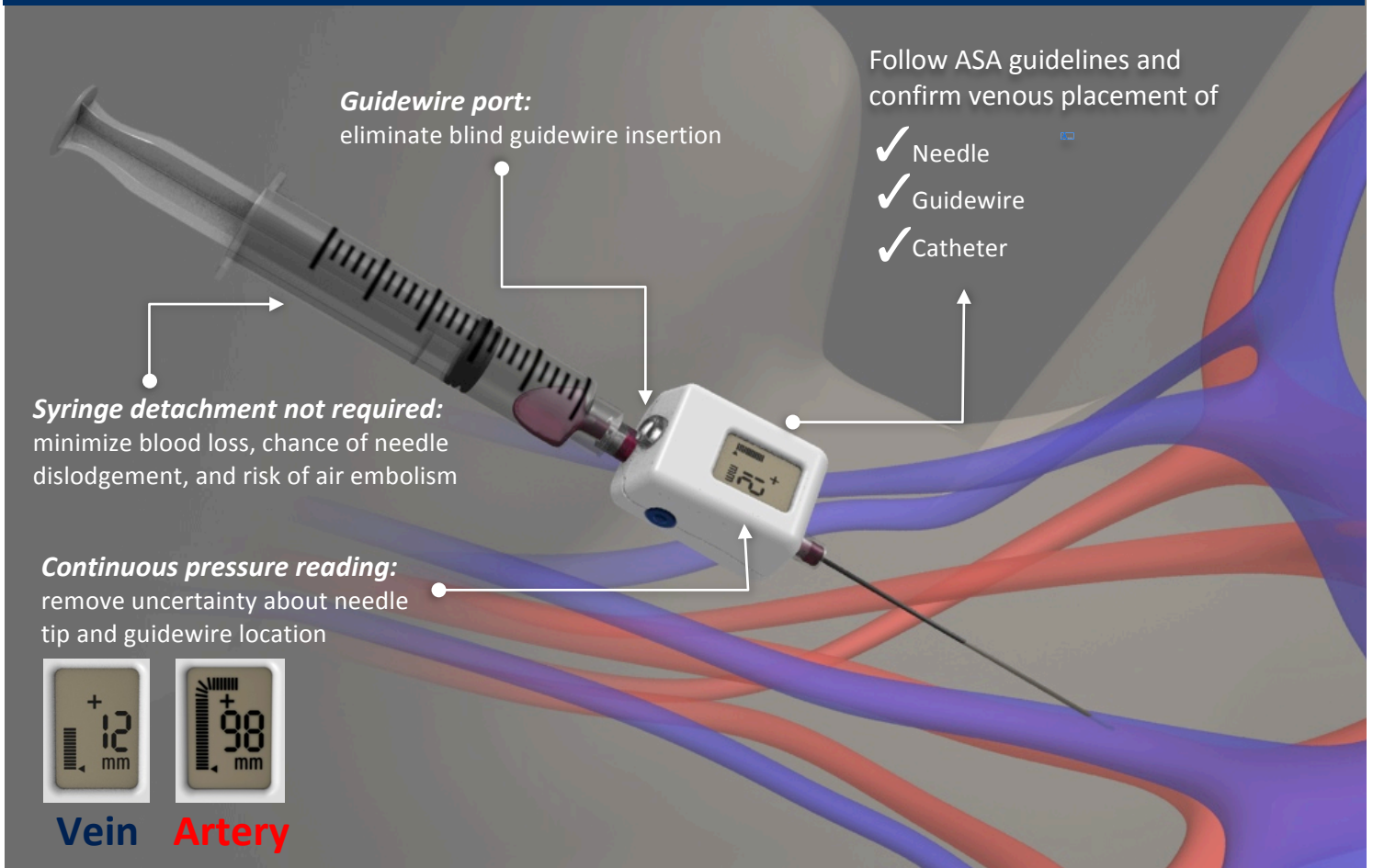


# Compass™ Vascular Access

The World's First Digital Pressure Transducer Designed For

- ❖ Central Venous Catheters
- ❖ Sheath Introducers
- ❖ Dialysis Catheters
- ❖ Implanted Ports



Clinically Proven Solution

Incidence of Arterial Cannulation without Pressure Measurement					
Author	Year	Catheterizations	Arterial Cannulations		Est. Annual Errors in US
			n	%	
Schwartz	1979	1,021	5	0.50%	29,400
Shah	1984	5,924	4	0.07%	4,200
Kron	1985	903	7	0.80%	46,800
Golden	1995	4,022	4	0.10%	6,000
Wicky	2002	3,300	11	0.30%	19,800
Pikwer	2009	1,079	11	1.00%	60,000

Incidence of Arterial Cannulation with Pressure Measurement					
Author	Year	Catheterizations	Arterial Cannulations		Est. Annual Errors in US
			n	%	
Jobes	1983	1,284	0	0.00%	0
Oliver	1984	1,172	0	0.00%	0
Ezaru	2009	9,384	0	0.00%	0

Schwartz, A., Jobes, D. & Greenholo, D. *Anesthesiology* **51**, S160 (1979).  
 Shah, K.B., Rao, T.L., Laughlin, S. & El-Etr, A.A. *Anesthesiology* **61**, 271-5 (1984).  
 Kron, I.L., Joob, A.W., Lake, C.L. & Nolan, S.P. *Ann Thorac Surg* **39**, 223-4 (1985).  
 Golden, L.R. *J Cardiothorac Vasc Anesth* **9**, 425-8 (1995).  
 Wicky, S. et al. *Eur Radiol* **12**, 901-7 (2002).  
 Pikwer, A. et al. *Eur J Vasc Endovasc Surg* **38**, 707-14 (2009).

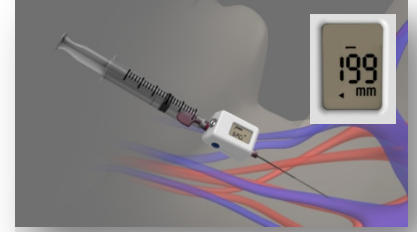
Jobes, D.R., Schwartz, A.J., Greenhow, D.E., Stephenson, L.W. & Ellison, N. *Anesthesiology* **59**, 353-5 (1983).  
 Oliver, W.C., Jr. et al. *J Cardiothorac Vasc Anesth* **11**, 851-5 (1997).  
 Ezaru, C.S., Mangione, M.P., Oravitz, T.M., Ibinson, J.W. & Bjerke, R.J. *Anesth Analg* **109**, 130-4 (2009).

## Quick Tips: Rapid Pressure-Guided Catheter Insertion

**1.** Calibrate Compass by **depressing blue button until 00 mm Hg appears**, then attach Compass to needle and syringe. **Screen and needle bevel should both point up.**



**2.** Insert needle and aspirate as usual. **Compass screen will read -199 mm Hg while in tissue.**



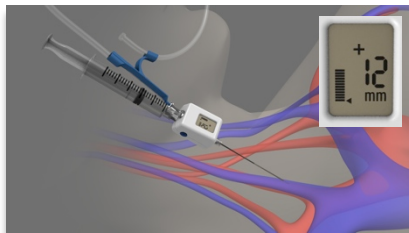
**3.** When needle enters a vein, note the blood color, stabilize the plunger, and check the Compass pressure reading.



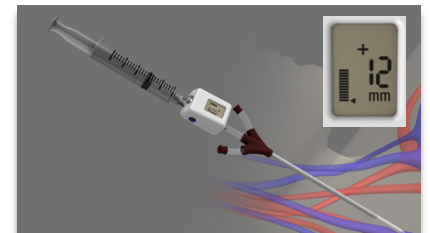
**A**rterial puncture will be indicated by mean arterial pressure and large pressure bar fluctuations.



**4.** After confirming venous access, **do not disconnect the syringe – thread guidewire through port.** Pressure reading confirms venous placement of the guidewire.



**5.** Before using catheter, confirm venous placement by connecting Compass to one of the access ports



Go to [www.miradorbiomedical.com](http://www.miradorbiomedical.com) for animated video demonstration

## Specifications

<b>Pressure Range</b>	-199 to + 199 mm Hg
<b>Accuracy</b>	±2 mm Hg below 50 mm Hg ±5 mm Hg above 50 mm Hg
<b>Operational Life</b>	8 hours
<b>Guidewire Port</b>	0.025"-0.038" Guidewires
<b>Battery Voltage</b>	3 V

<b>Sterile</b>	<b>Non-Pyrogenic</b>
<b>Single Use</b>	<b>Latex Free</b>

**P**ressure displayed as an average (3 second sliding window) and continuously updating pressure bars to show heart rate and respiratory fluctuations

