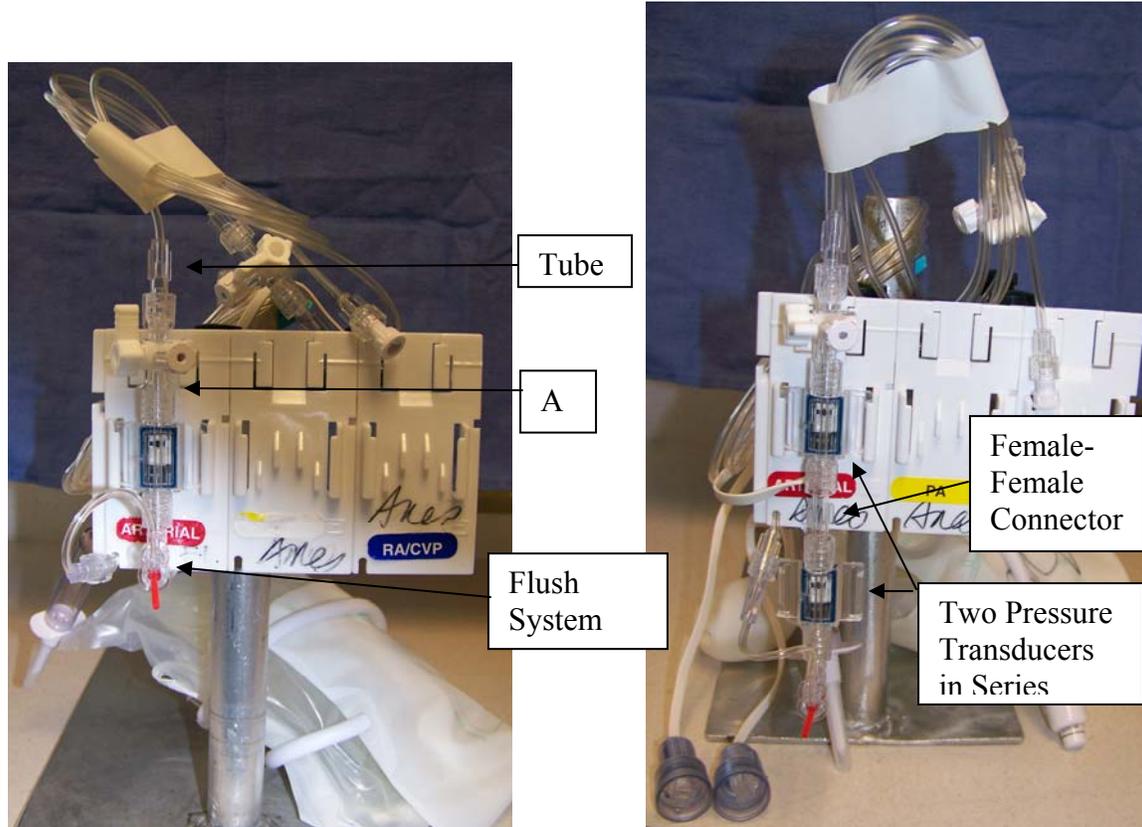


ECOM Pressure Transducer Set Up



The ECOM system uses signals from the ECOM endotracheal tube combined with the arterial pressure to calculate cardiac output and systemic vascular resistance. The ECOM system needs input from either the radial or other arterial pressure transducers. The easiest way to provide a source for both the ECOM system and the multifunction monitor in the operating room is to split the signal by having two pressure transducers. A standard pressure transducer is unscrewed from the stop cock at location A. A female-female connector is screwed onto the pressure transducer. A second pressure transducer is then separated from both the flush system and the tube. The second pressure transducer is attached to the first with the female-female connector. The system now has two pressure transducers connected in series. The cable from one pressure transducer attaches to the standard operating room multi-function monitor. The second pressure transducer is connected to the ECOM monitor. Dual pressure transducers with two pressure outputs should be available in the near future. At the present time, you must make this dual pressure transducer to have two pressure outputs (one to the OR multi-function monitor and the second to the ECOM system.)

The supplies that you need to make this set up are the following.

1. Two pressure transducers.
2. A female-female connector.



Transducers
Top View

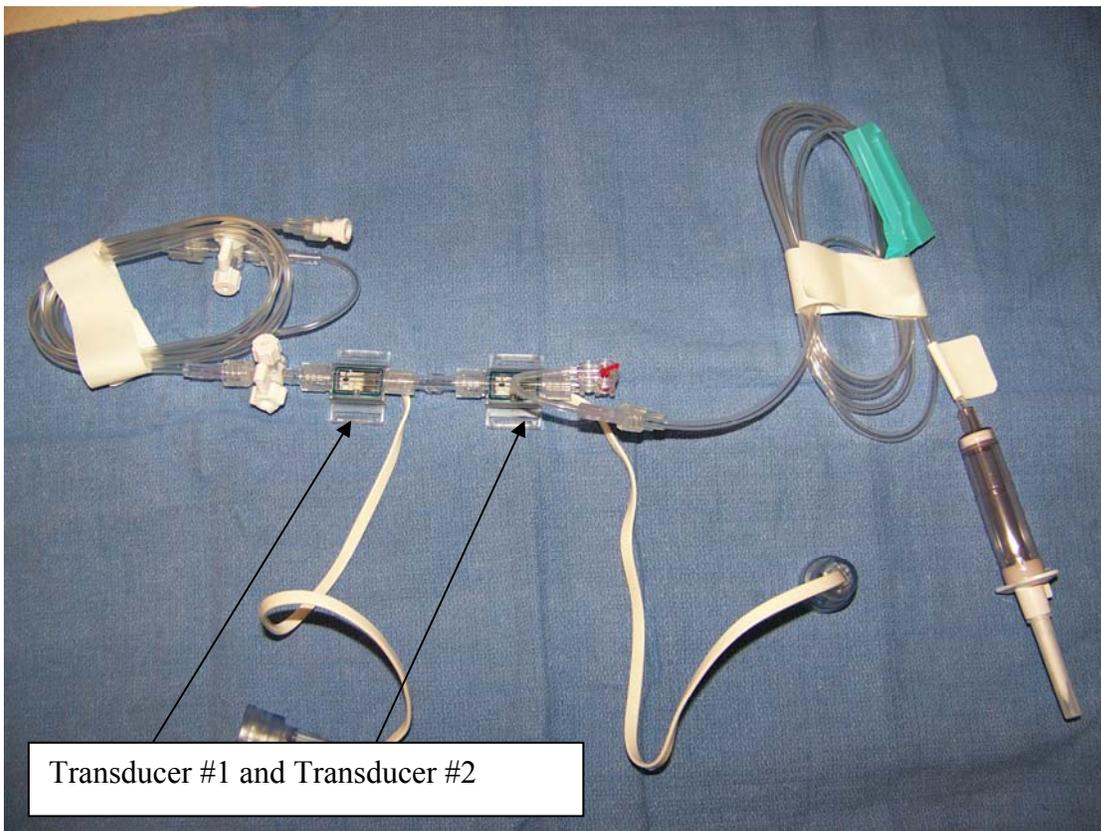
F-F Connector



Transducers
Bottom View

F-F Connector

The transducer will look like this when properly put together.



Transducer #1 and Transducer #2

Transducer #1 and Transducer #2 in series. This set up with two transducers is very valuable in complex cases. In patients who have an intra-aortic balloon pump (IABP) it is very valuable to have one transducer to hook to the balloon pump console. The second transducer can be hooked up to the operating room or intensive care unit multi-function monitor. The IABP pressure can then be displayed on both the IABP console AND the multi-function monitor simultaneously.

A second very valuable use of the dual transducer set up is on patient transport of critically ill patients. One transducer can remain hooked to the operating room multi-function monitor while the second is attached to the transport monitor. Once the transport monitor is zeroed and working properly then the transducer hooked to the OR multi-function monitor can be disconnected. This dual transducer set up prevents that very uncomfortable period where the arterial line is disconnected and one has to wait until the new monitor is working properly. This period of time can be prolonged by malfunctioning monitors or cables. The ability to have two pressure transducers makes a malfunctioning transport monitor a non-issue as the OR monitor will display while the hook up for transport can be completed.

We have also used this dual transducer set up for numerous research projects where we need the arterial pressure in both the OR multifunction monitor AND a second monitor recording for research purposes. It is a very, very useful and valuable trick to easily allow recording of transduced pressures on two systems simultaneously.