# Removing the Ranger® System Standard Flow and High Flow cassettes from the warming unit

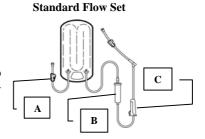
Note: The Ranger warming unit should always be positioned at or below patient height when using the Ranger high flow set. The warming unit can be adjusted to above patient height after use in order to facilitate cassette removal.

In order to remove a Ranger System cassette from the warming unit you must first relieve a small amount of pressure within the cassette.

#### **Standard Flow Cassette Removal**

## At patient height:

**Option 1:** First, close the proximal pinch clamp (A). Second, open all distal pinch clamps and allow a few milliliters of fluid to flow to the patient or disposal reservoir. The cassette will easily slide out after only a few seconds.



## At or Below patient height:

**Option 1:** First, close the roller clamp distal the manual bubble trap (C). Second, squeeze the bubble trap (B) and while continuing to squeeze the bubble trap, close the blue proximal pinch clamp (A). Third, release the bubble trap. This will draw enough fluid out of the cassette for it to be easily removed. This option assumes that the set is still connected to the IV fluid bag.

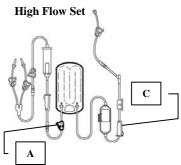
*Option 2:* First close the blue proximal clamp (A). Second, squeeze the bubble trap (B) and while continuing to squeeze the bubble trap, close the roller clamp distal the bubble trap (C). Third, release the bubble trap. This will draw enough fluid out of the cassette to allow it to be removed. *This option assumes that the set is still connected to the patient.* 

*Option 3:* First, close the roller clamp distal the manual bubble trap (C). Second, open all clamps proximal to the cassette. Third, lower the fluid bag below warming unit height. Allow a few milliliters of fluid to flow back towards the fluid source. The cassette will easily slide out after only a few seconds.

### **High Flow Cassette Removal**

## At patient height:

*Option 1:* Close the proximal pinch clamp (A). Second, open all distal pinch clamps and allow a few milliliters of fluid to flow to the patient or disposal reservoir. The cassette will easily slide out after only a few seconds.



### At or Below patient height:

*Option 1:* First, close the roller clamp distal the auto-venting bubble trap (C). Second, open all clamps proximal to the cassette. Third, lower the fluid bag below the warming unit. Allow a few milliliters of fluid to flow back towards the fluid source. The cassette will easily slide out after only a few seconds.

