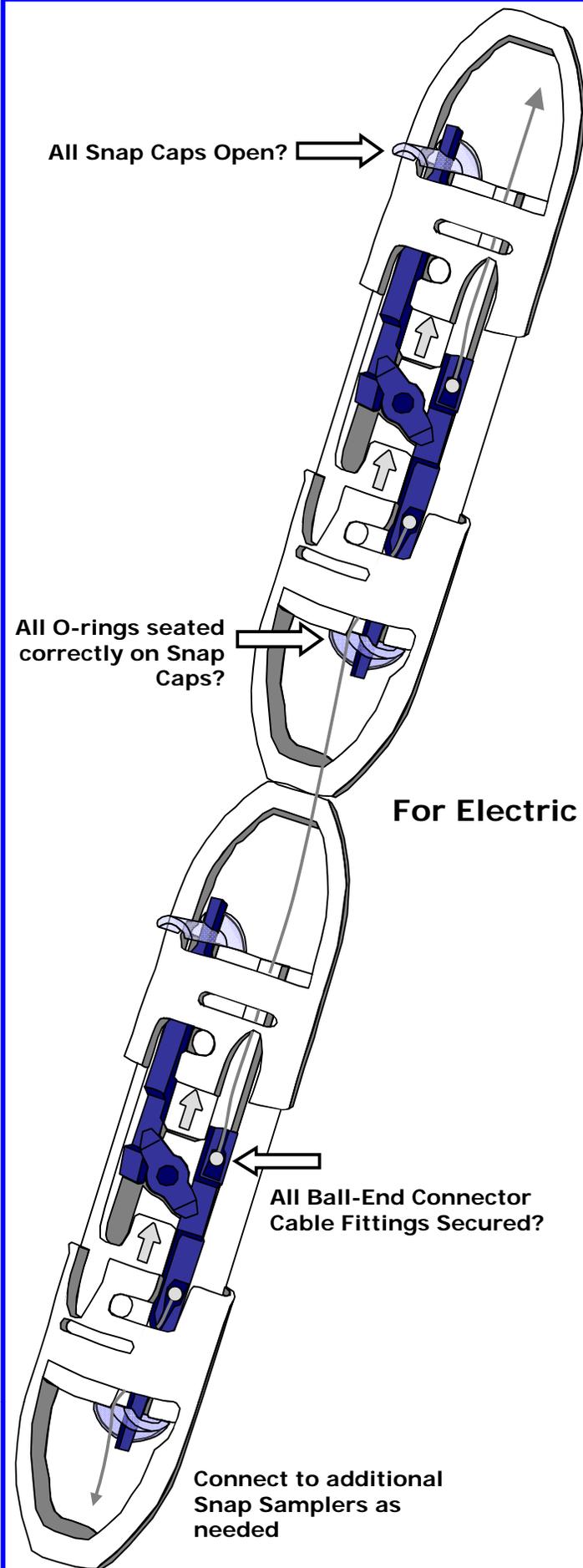


SNAP SAMPLER®
DEPLOYMENT
GUIDE

PRE-DEPLOYMENT QUICK CHECK

V02-2011

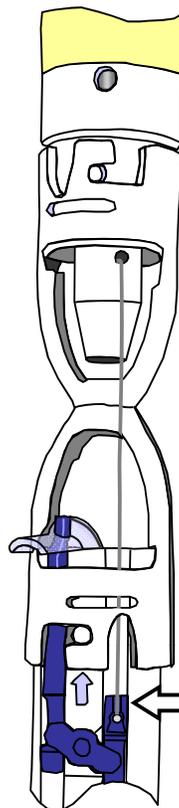


Connect to Pneumatic or Electric Trigger

Setting up Samplers

1. Insert bottles into samplers
2. Secure all twist-on connectors with ***gently tightened*** blue set screws
3. Attach Electric/Pneumatic actuator to top Snap Sampler
4. Set all ***upper*** and ***lower*** Snap Caps
5. Attach ball-end connector cables
6. Perform visual "Quick Check"
7. Trim Snap Caps (required for 2" wells, optional for larger wells)
8. Unspool trigger line downhole
9. Hang Trigger line on Dock Ring

For Electric and Pneumatic Triggers...



Electric or Pneumatic:
Make sure plunger is free to fully travel

Pneumatic:
Fully extend plunger;
Attach ball fitting to sampler;
Push plunger up to remove slack from cable

All Ball-End Connector Cable Fittings Secured?

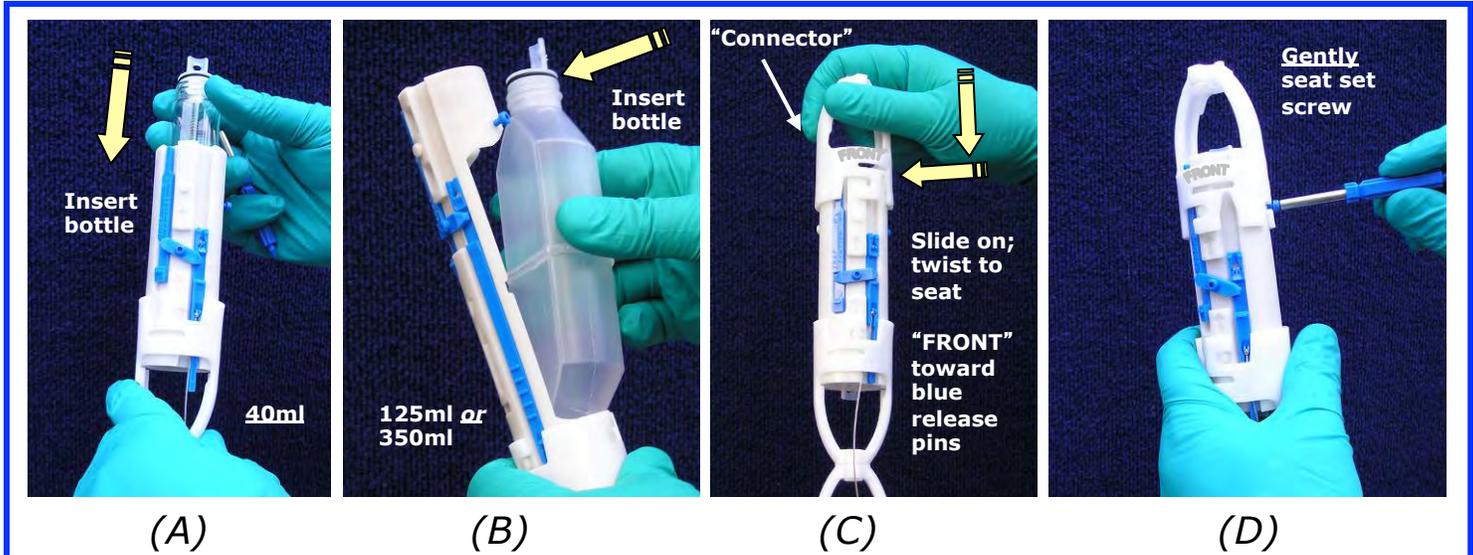
Connect to additional Snap Samplers as needed

Attach plunger cable to upper release pin

SNAP SAMPLER DEPLOYMENT (PAGE 1 OF 2)

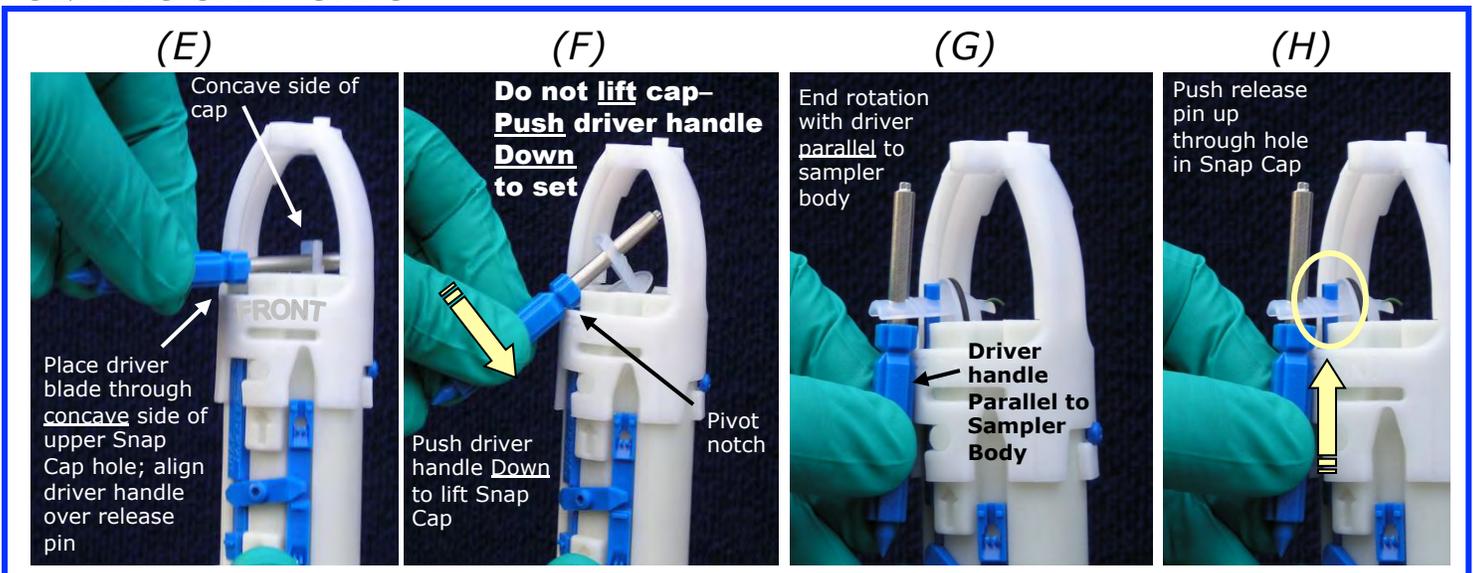
INSERTING AND SECURING BOTTLES

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- A) Insert 40 ml VOA into top of 40 ml Snap Sampler...**
- B) Insert 125ml or 350ml POLY into back side of 125 ml Snap Sampler.**
- C) Slide twist-on "Connector" over sampler and twist clockwise to seat—the word "FRONT" should appear above the blue release pins.**
- D) Gently secure connector with blue set screw.**
- E) Set All Snap Caps. Insert Snap Driver blade into the upper hole of the concave side of Snap Cap; align driver over the release pin that you will set the Snap Cap.**
- F) Push down on Snap driver handle to lift Snap Cap; grasp driver or use thumb to push driver down; keep fingers clear of the under-side of the driver tool.**
- G) Pivot on the notch in the driver handle until driver handle is flush/parallel with sampler body and Snap Cap is in its seat.**
- H) Push release pin up through lower hole in the Snap Cap; repeat "E" through "H" for each Snap Cap and all Samplers.**

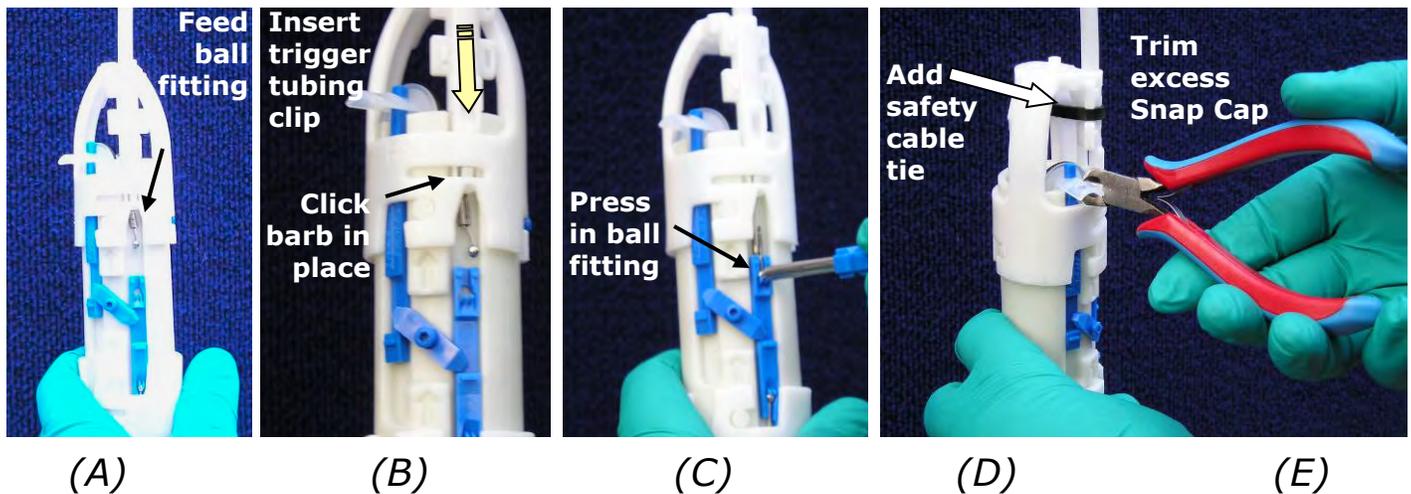
SETTING SNAP CAPS



SNAP SAMPLER DEPLOYMENT (PAGE 2 OF 2)

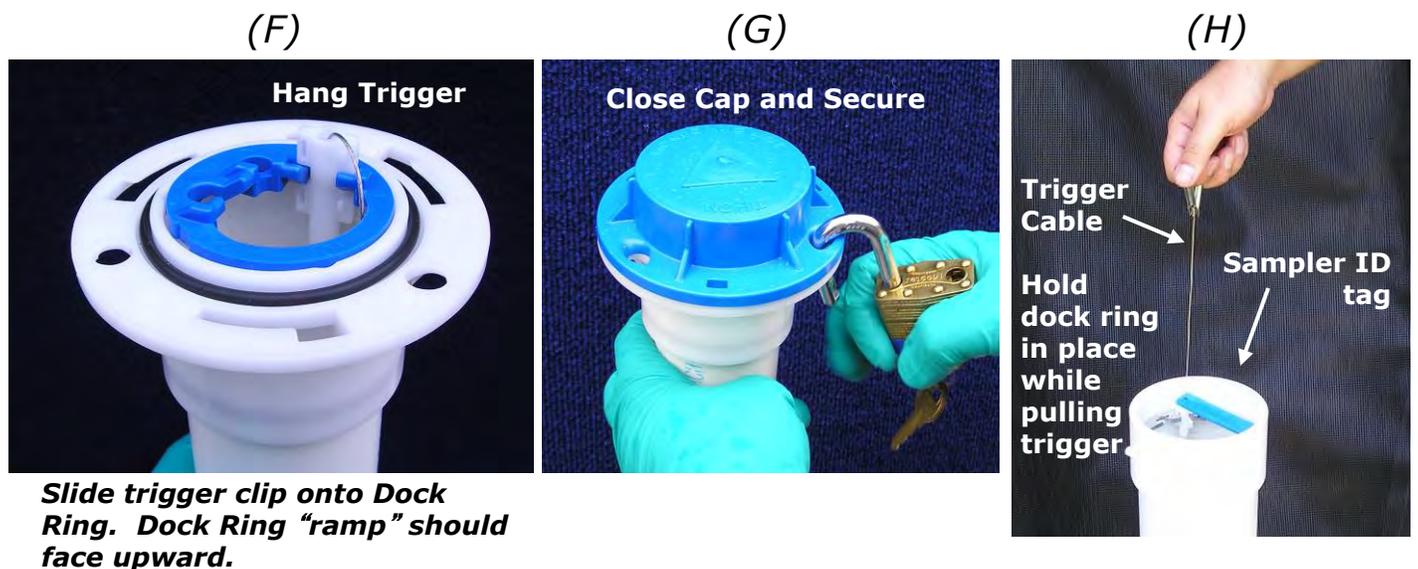
ATTACHING MANUAL TRIGGER

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- A) Insert trigger in right/upper release pin groove—feed ball fitting first.**
- B) With **trigger barb facing out**, insert trigger until barb **clicks** into position.**
- C) Press ball fitting into release pin using Snap Driver Tool.**
- D) Attach safety cable tie.**
- E) Trim protruding Snap Caps between ribs (required for smaller diameter wells). Where more than one sampler is attached to one trigger, **connect ball-end connector cables between each sampler** (not shown).**
- F) Lower Sampler to depth; seat trigger clip into ramp on Dock Ring.**
- G) Close and lock well cap.**
- H) To sample, **pull trigger cable while holding Dock Ring in place**; remove trigger from dock and retrieve samplers.**

WELL HEAD DOCK ATTACHMENT



DEPLOYMENT TIPS

Electric/Pneumatic

These are some helpful tips that can make Snap Sampling a little easier

Setting the Snap Caps

- Insert the screw driver into the top hole of the concave side of the Snap Cap. The tab on the bottle should be on the far side, opposite the blue release pin. Align the screw driver with the blue release pin you want to set. Use the notch in the screw driver handle as a pivot point on the edge of the twist-on connector part—**push down on the handle** to set the cap into position. Keep your fingers on top, not under, the driver handle as you push down—the screw driver handle should be parallel to the sampler body for the blue release pin to easily slide up into the hole on the snap cap.

Removing the Bottles

- After you retrieve the samplers, you only have to remove the top twist-on connector on each sampler—the end set with the blue screw. The other end with snap-on connector piece does not need to be disassembled.
- When removing the 40ml glass bottles, tip the samplers and let the sample bottle come out by gravity—**DON'T pull it out by the tab**. If the bottle sticks **push the bottle from the bottom** until it comes free.

Deploying the Electric Trigger

- Before attaching the electric actuator to the Snap Samplers, make sure the plunger moves freely. The orientation of the plunger should prevent debris from entering the plunger cavity, but make sure it travels fully before setting the Snap Sampler bottles.
- During the first deployment, lower the samplers by **unspooling the coil in a circular motion**—that will help avoid twisting of the cable and “memory” effect.
- Cable can be pulled up on a reel, winch, or by hand if shallow enough. If pulled by hand, cable can be placed in a bucket, tub, or on plastic sheeting.
- Hang the trigger line by the wire mesh hanger onto the dock ring. Attach to the ring with a quick link or tip tie(s). Feed the electric plugs downhole with the cable, making sure that the plugs can be retrieved without moving the Snap Samplers at the next sampling event
- To sample, attach the “banana” plugs to the electric trigger switch and press the power button 5-10 times in quick succession. You may be able to feel the plunger strike the fully retracted position through the cable.

Deploying the Pneumatic Trigger

- Before attaching the pneumatic actuator to the Snap Samplers, make sure the plunger moves freely. The plunger will be tight but it should move up with finger pressure, and pull out by hand using the cable attached to the plunger.
- During deployment, lower the samplers by **unspooling the air line in a circular motion**—that will help avoid twisting of the tubing and “memory” effect.
- Air tubing can be pulled up on a reel or by hand. If pulled by hand, tubing can be placed in a tub, or on plastic sheeting.
- To activate the trigger, attach a hand or electric pump to the upper end of the air line. Increase pressure until pressure increase stops, or 80 psi, whichever occurs first. For shallow deployments (<20ft/6m submerged), pressure may stop increasing as low as 10-20psi (30Kpa) and you may hear bubbling as air escapes (this occurs only after samplers have closed). For deep deployments (>100ft/30m submerged), pressure will continue to increase after samplers have tripped. You may see a brief pressure drop when samplers trip.
- When retrieving Snap Samplers, **leave pressure system engaged to clear water from the tubing for next deployment.**

