Trades – Plumbing Activity

Volunteer Instructions

Introduce yourself and give the students a brief description of the activity.

There should be 2 to 3 students working together to take the faucet apart and then put it back together.

There will be a small tool box provided with necessary tools.

Students will follow step by step instructions. Volunteer will assist as needed.
Plumbing Project

Removing the Cartridge from a Single Handle Faucet

Tools required for the project:

- Phillips head screwdriver
- Needle nose pliers
- Allen Wrench 7/64
1. Use one hand to pull handle up while removing red and blue plastic insert with fingers.

2. Holding up on handle with one hand, insert 7/64 Allen wrench into screw hole and turn counter clockwise. (It will feel tight before it gets loose.)
3. Remove handle by pulling up.

4. While pushing down on bonnet remove screw using Phillips head screwdriver by turning counter clockwise.

5. Pop out bonnet by pulling up slightly and tilting towards the back of the faucet.
6. Using three fingers and a thumb pull up on the plastic cover... Silver outer ring (looks like metal)

7. Using the needle nose pliers pull the clip straight out that is located at the back of the module at the top. It may be necessary to push on the tabs of the clip from the opposite side first (on the underside of the handle base.)

8. Replace the screw and turn clockwise two turns.
9. Use the needle nose pliers and pull up at the base of the head of the screw; pry up using a lever motion and some upward pressure.

Congratulations! You have removed the cartridge and have taken the faucet apart.

Now, it’s time to put it back together!

10. Remove the screw at the top of the cartridge.
11. Place the cartridge back into the chamber. **IMPORTANT**: The 2 tabs at the top of the cartridge must be at 12 and 6 o’clock.

12. Push the cartridge in as far as it can go with your fingers.

13. Using the needle nose pliers in the open position push down on the tabs located at 12 and 6 o’clock; pushing the cartridge down securely into the chamber.

**IMPORTANT**: The tabs must be 12 and 6 o’clock or the clip will not rest securely into its slot.
14. Turn the module around, place the clip back in the slot.

Note: If the clip does not go in easily, adjust the tabs with needle nose pliers in the open position by turning slightly to the right or the left. **Do not force the clip;** adjust the tabs for easy insertion.

Note: The notch on the stem in the center of the cartridge must be at the bottom (6 o’clock position).

15. Replace plastic cover by pushing down.
16. Replace bonnet; make sure the round hinge is in the bottom groove on the grey part of the cartridge body.

**Note:** Plastic insert must be positioned gently on top of the cartridge stem.

17. Replace the bolt using the Philips screwdriver while securing the bonnet.

18. Replace handle making sure rectangular slot matches up with protrusion on the bonnet.
19. Replace set screw and tighten turning clockwise using the Allen wrench.

20. You have now assembled the faucet.

21. Replace plastic insert making sure blue is on the right and red is on the left.