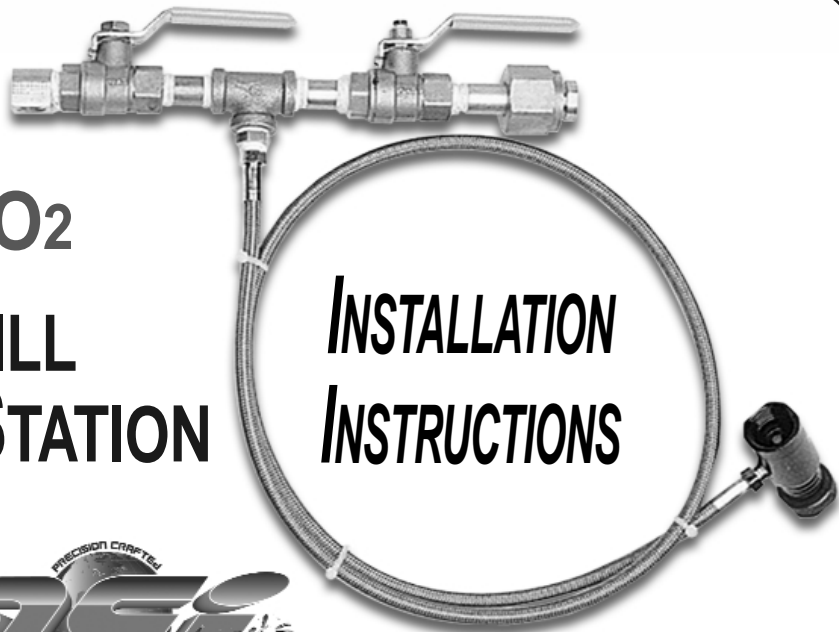


CO₂ FILL STATION

INSTALLATION INSTRUCTIONS



CO₂ Fill Station Instructions

ACI Sports Fill Stations are designed to re-fill your constant air (C.A.) bottles (3.5 oz., 7oz., 10 oz. and 20 oz.) with carbon dioxide (CO₂). *Note that CO₂ is a liquid*, and the bottles are designed to hold the designated quantity in liquid form.

If you do not use a bulk tank with a siphon tube, you may wind up transferring only the CO₂ gas, causing an improper fill. The bottles are made to accommodate around 65% of their volume in liquid CO₂. The remaining space is for expanding CO₂ gas caused by temperature changes.

The following equipment is absolutely necessary for safely filling a C.A. bottle:

- 1. Scale** - It is impossible to determine the volume of gas without a scale. ***Do not try filling a C.A. bottle without a scale.***

The scale will indicate the volume by weight of the liquid CO₂ that is transferred from the bulk CO₂ tank to your C.A. bottle. A hanging scale is preferable, because you can hang the bottle as it fills. If the bottle starts to tip, you might forget to shut off the incoming liquid CO₂ and overfill it. Take precautions against doing this, as the bottle will present a danger to all who may be around you.

- 2. Bulk CO₂ tank with a siphon tube installed.** ***DO NOT USE A BULK CO₂ TANK WITHOUT A SIPHON TUBE.*** The siphon tube is necessary for transferring the liquid CO₂. If you do not use a siphon tube in your bulk tank, you'll transfer gas and liquid, and will not get the proper amount of shots.

Secure your bulk tank with a chain or cable to a post, away from any heaters or sunlight. Rising temperatures cause the gas to expand, creating a hazard.

- 3. A Fill Station** - This connects your bulk CO₂ tank to your c.a. bottle. A fill station is equipped with a drain valve and a manifold, which should have a quick shutoff valve in case of emergency. The manifold also includes a fill adapter. A fill adapter is used to open the valve (by depressing the pin) in the C.A. bottle to allow the liquid CO₂ to enter.

DO NOT USE A C.A. BOTTLE WITHOUT A SAFETY VALVE THAT INCLUDES A UNIFIED BURST DISK. **Note:** If a burst disk has been activated due to excessive pressure, a new unified burst disk needs to be installed by a qualified air smith.

STEPS FOR FILLING C.A. BOTTLES

Hang your scale close to your bulk-supply tank, making sure no objects interfere with the free-hanging tank and hose. Attach the fill station to the bulk tank. Then attach your ca bottle to the fill adapter and tighten until it depresses the pin on the valve, and drain any left over co₂ gas. Hang the bottle on the scale and record the weight. To this recorded weight, you will need to add the 3.5 oz., 7 oz., or 10 oz. of liquid co₂ that you are transferring to the ca bottle.

Once the correct weight is reached, close off the bulk tank valve. Then, unscrew the knob in your fill adapter to allow the pin to shut off the valve. Open the drain valve to release the co₂ contained in the manifold and hose, unscrew the ca bottle from the fill adapter.

THINGS TO REMEMBER

1. **Always use a Scale** to transfer the correct volume of CO₂. Without a scale, it's like driving blind.
2. **Do not overfill your C.A. bottle** to try to get a few more shots. You will probably activate the unified burst disk, losing more than you have gained.
3. **Secure your bulk tank** so it will not fall or bump into other objects.
4. **Do not leave C.A. bottles in a closed car.** The built-up heat can activate the burst disk or cause ruptures if the burst disk is not properly installed.



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