



## OWNER'S MANUAL FOR AIR SHIFTER KITS --ELECTRIC OVER AIR SHIFTING--

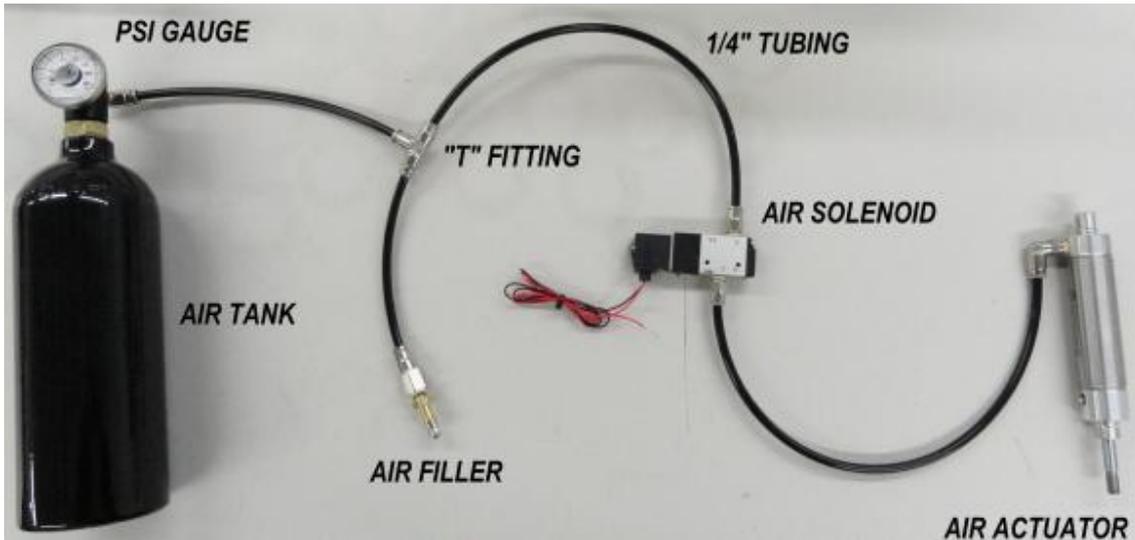
The Dynotune air shifter kit will let you to make lightning quick shifts at the push of a button. This kit can be used as is for a full auto transmission on drag bikes, if you have a normal street transmission you will need an ignition kill to cut the spark when shifting. You can use any make shift kill, electronic or a "T" shift kill. Check DynoTune's webpage for their ignition Kill devices. This is a universal kit and professional installation is recommended. Fabrication will be required for final fitment.

**DANGER:** Do not attempt to shift the bike using the air shifter without the bike moving! If the bike is not moving and riding you can damage the shift forks, the shift shaft and or transmission parts!

Please read all the instructions before starting installation.

There are many ways to hook up the system, its up to you to pick the layout you would like. The standard way shown in the picture is the most common. Alternately you can swap the air filler and the PSI Gauge. All fittings are made with 1/4" tubing ends and 1/8"NPT ports. The bottle outlet has 3 ports, you can use any of the ports for air fill, air outlet, PSI gauge etc.





**Step 1:**  
Mount the air tank. Most folks mount the air tank under the rear tail section or near the swing arm. Keep all tubing and wires away from moving gears, tires, sprockets, chains etc.

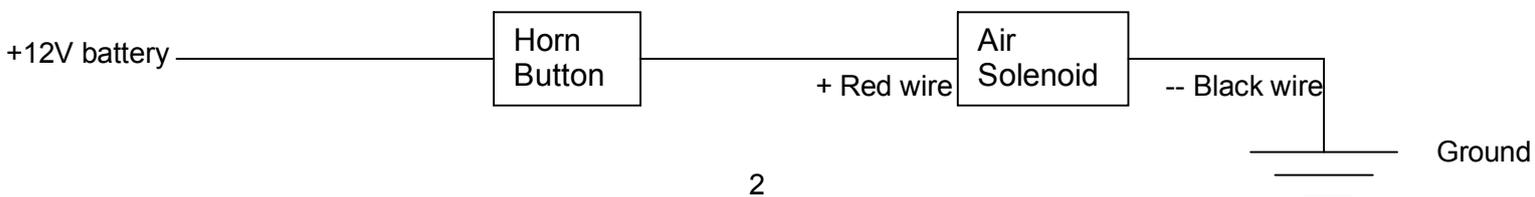
**Step 2:**  
Mount the air cylinder to the bike. The cylinder can be configured to “push” or “pull the air cylinder rod.



Use the clevis or custom make a bracket to mount the shifter. Attach one end to the shift lever etc.

- Notes:
- 1) Always make sure the rod is in the center of the stroke so you have the maximum travel for both up and down shifting.
  - 2) Make sure the cylinder is not solidly bolted to anything, it should freely move and pivot slightly so the cylinder shaft does not bind when shifting.
  - 3) Test shift the transmission BY HAND (while not running) to see if it shifts smooth up and down.

**Step 2:**  
Mount the air solenoid close to the air cylinder for best performance (typically 18 inches or closer). Wire the air solenoid as per the schematic below. If your using an ignition kill, use the directions for wiring for the kill device you purchased. Some horn buttons send out a ground signal so just reverse the +12V and the Ground wires on the wiring below.



### Step 3:

Install the fittings into the bottle, solenoid, and the air cylinder. They are 1/8" NPT pipe fittings. Use silicone RTV on the threads if there is no pre-applied sealant...adding a bit more will not hurt. The fittings will get tight after a few turns in, this is normal as pipe threads have a taper to them so as you screw it in it will get tighter and tighter. Do not cross thread the fittings!



### Step 4:

Run the air tubing to all your components. Cut the tubing square, with simple scissors. To insert the tubing into the fittings simply push the tubing in until it stops. To remove the tubing, push in on the tubing while pressing in on the outer ring, hold the ring in and then pull the tubing out. Keep all the tubing away from moving parts or anything that can cause issues while operating the bike! Hook up the air solenoid as shown below:



Port labeled "P" goes to the air tank/supply, port labeled "A" goes to the air cylinder/air cylinder, port labeled "EA" is the exhaust and this port is left open.

### Step 5:

If you need or have an engine kill, hook that up now. Follow the directions that come with the engine kill device.

### Step 6:

You are ready to test the air shifter. Fill the air tank with about 100-125PSI air pressure. Check for leaks with soapy water. Fix any leaks, double check hoses and make sure nothing interferes with the driving of the bike etc. Make sure your engine kill if installed is working properly before you test your air shifter! Failure to do so might cause transmission damage!

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