



SAFE SERVICE NOW

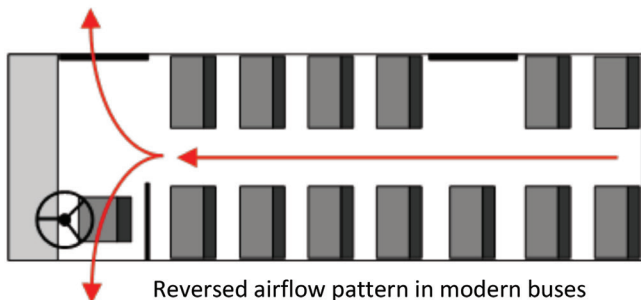
COVID-19 – Bus Airflows and Solutions

Air in buses recycles in the cabin and then flows to the front carrying bacteria and viruses with it.

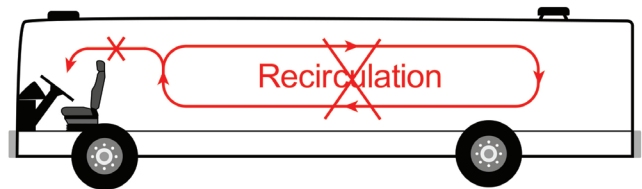
EVERY OPERATOR should use these **AIR CONTROL SETTINGS** to create safer airflow in their vehicles. Also, where temporary barriers have been installed, these settings will **INCREASE** effectiveness.

1. Driver's window **CLOSED**
2. Driver's air and front vents set to **FRESH**
3. Blowers on **FULL POWER** in Front (wear earplugs)
4. Passenger windows **CLOSED**
5. Front roof hatch **CLOSED**
6. Blowers **OFF** in back
7. Rear roof hatch **OPEN** at its back
8. **REAR DOOR** Boarding

When a bus is moving forward it creates reversed airflow in the cabin bringing viral particles into the driver's workstation and out through the driver's window and other air leaks. We can protect drivers who are currently at the wrong end of that flow with simple changes to air control settings.



Status Quo Creates Dangerous flow with recycled and very poorly filtered air. That is why the blowers should be shut off in back with the rear roof hatch open. Recycling also aerosolizes respiratory particles, creating small viral particles that stay in the air, putting passengers and operators at risk.



Implementation of Barriers Vastly Improves Air Flow Quality. The suggested air control settings with properly designed barriers are even more effective and will bring fresh air through the front and expel it at the rear of the bus, eliminating the recirculation of viral particles and reduce infection risk for transit workers and passengers. ATU International is working with engineers at the **Virginia Tech Transportation Institute** and the **University of Washington Aerodynamics Department** to design barrier prototypes for common bus designs. Temporary barriers can help tremendously, and semi-permanent design plans will be distributed soon. A semi-permanent barrier design is approaching completion at the Toronto Transit Commission.

