



# SMART RESPONSE MEASURES COVID-19 UPDATE

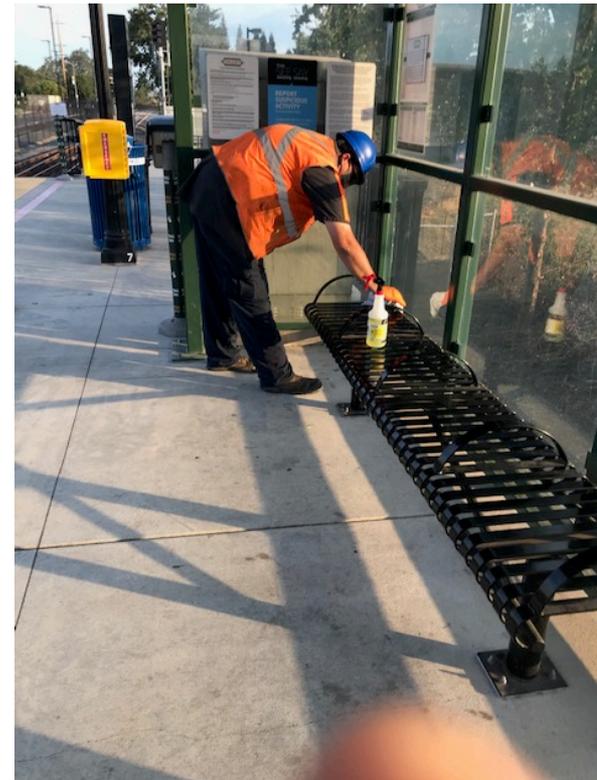
December 16, 2020

# PREVENTATIVE ACTIONS TAKEN

- SMART has implemented multiple measures to prevent and limit the spread of COVID-19 including:
  - » Installing hand sanitizer stations throughout the railcars
  - » Posting local Health Official guidelines
  - » Increasing cleaning of the vehicles from once daily to twice daily
  - » Providing facial coverings freely to the public for any customers who did not have one
  - » Adding the usage of electrostatic sanitizers to the vehicle cleaning procedures
  - » Upgrading the onboard air circulation system including:
    - Upgrading the onboard recirculation filters
    - Implementing UV sanitizers for circulating air

# INCREASED CLEANING

- SMART cleans and sanitizes its fleet and stations two times per day using products on the Environmental Protection Agency approved list for use against COVID-19.



# ELECTROSTATIC SANITIZERS

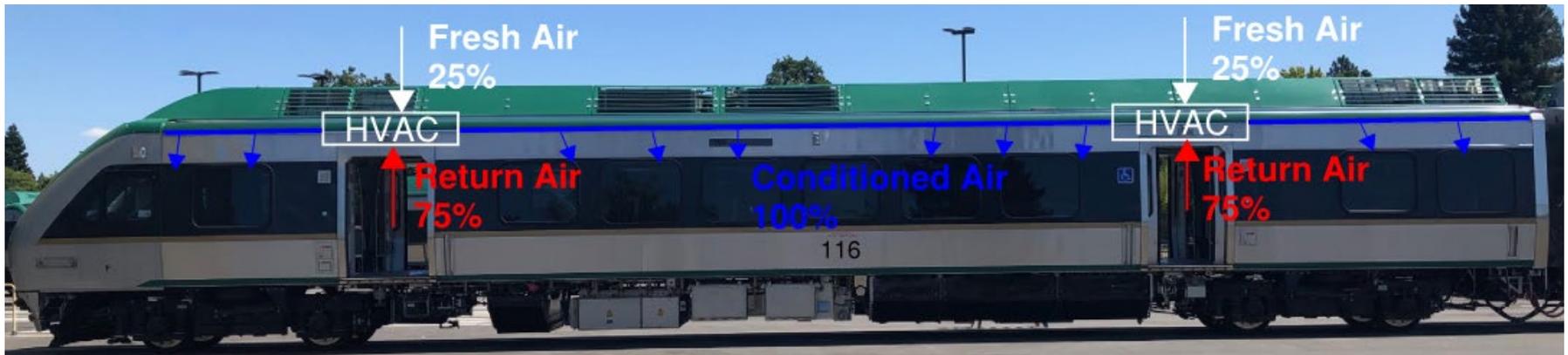
In addition to the cleaning of the Diesel Multiple Units two times a day by our Vehicle Maintenance Team.

- SMART uses an electrostatic application system which offers an increased level of surface disinfection.
- SMART also provides hand sanitizer towelettes upon request to passengers which will allow them to wipe their hands, tables, or handrails if they choose.



# ONBOARD HVAC OPERATION

- SMART's DMU's each have 2 Heating, Ventilation, Air Conditioning (HVAC) units.
- These units each pull in 25% of their air supply from outside (fresh air) and 75% of their air from the inside (recirculated/filtered).
- This air is mixed and released throughout the car length through overhead vents.
- SMART's HVAC units replace the air in the car with filtered/fresh roughly every 1 minute and 20 seconds. They also entirely replace the air in the car with fresh outside air every 5 minutes and 20 seconds.



# AIR FILTER UPGRADE

- Filters are rated by their minimum efficiency reporting value (MERV).
- The higher the MERV rating, the more airborne materials the filter will pull from the air.
- SMART previously used MERV-8 filters and has upgraded them to MERV-13 following CDC recommendations.
- Before implementation of this upgrade, it was estimated that upgrading SMART’s filters from MERV-8 to MERV-13 could provide roughly a 20% improvement in removing harmful pathogens from the air.

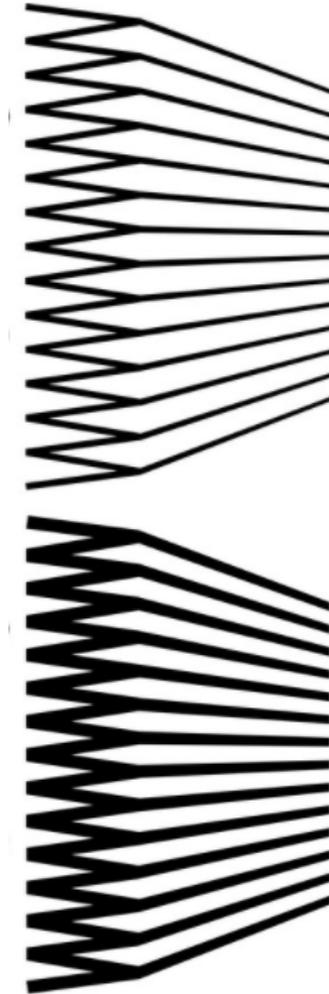
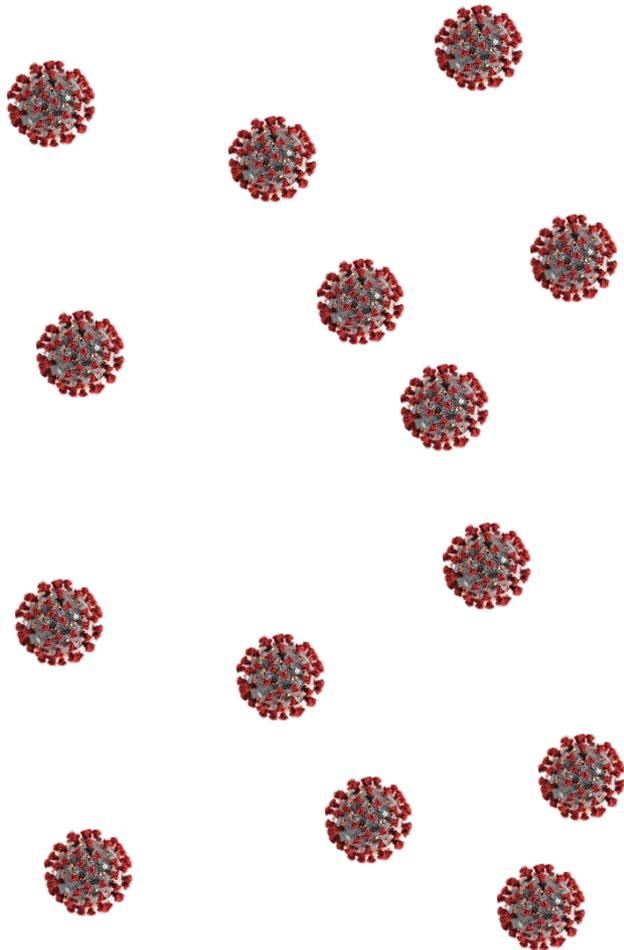
## MERV Ratings

Captures allergens smaller than 1 micron

Strong		Stronger		Strongest	
MERV 8		MERV 11		MERV 13	
Dust	✓	Dust	✓	Dust	✓
Mold	✓	Mold	✓	Mold	✓
Pet Dander	✓	Pet Dander	✓	Pet Dander	✓
Smoke	✓	Smoke	✓	Smoke	✓
Dust Mites & Debris		Dust Mites & Debris	✓	Dust Mites & Debris	✓
Bacteria		Bacteria		Bacteria	✓
Virus Carriers		Virus Carriers		Virus Carriers	✓
Smog		Smog		Smog	✓
Allergens		Allergens		Allergens	✓

# AIR FILTER UPGRADE

Air filter upgrades now pull out more airborne particles than before.



MERV 8

MERV 13

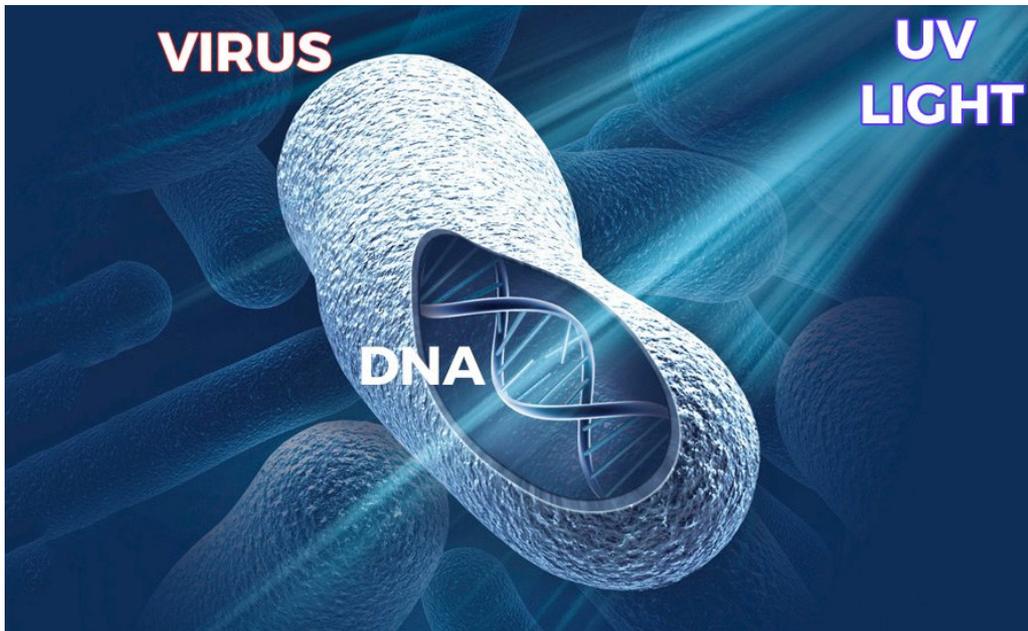
# RESULTS OF UPGRADE

- SMART Vehicle Maintenance Staff conducted air quality testing on trains with and without the upgraded filter using an “air particle counter”.
- This testing equipment sucks in air within the passenger compartment and counts airborne particles and potential pathogens.
- Testing showed that this modification actually provides a 67% improvement over the old filters.
- Air within the passenger cabin now has 67% less airborne particulates than before.



# UV LIGHT STERILIZATION

- As a second line of defense against airborne pathogens, SMART has demonstrated installing UV sterilizers to the HVAC systems aboard SMART Trains.
- These systems break down the DNA within pathogens to keep them from growing, effectively killing them.



# TIMELINE FOR ALL UPGRADES

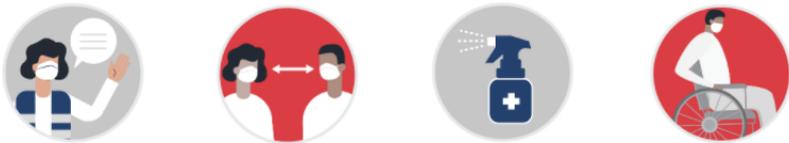
- Air filter upgrades have been completed for the entire fleet and will be replaced during periodic maintenance.
- UV upgrades are estimated to be completed by March 2021.

HVAC UPGRADE SCHEDULE

	OCTOBER				NOVEMBER				DECEMBER				JANUARY				FEBRUARY			
WEEK	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
ORDER FILTERS	X	X	X	X	X	X														
FILTERS DELIVERED						X														
INSTALL FILTERS						X														
TESTING AND UV DEMONSTRATION						X	X	X												
ORDER CUSTOM BRACKETS									X	X	X	X								
RECEIVE CUSTOM BRACKETS												X								
ORDER UV LIGHTS									X	X	X	X	X	X	X					
RECEIVE UV LIGHTS															X					
INSTALL UV SYSTEM															X	X	X	X	X	

# MTC GUIDANCE

## Agency Commitments



- ✓ State mandated and properly-worn **face coverings are required**.
- ✓ Agencies are **managing capacity** to allow for safe distancing.
- ✓ We're **cleaning and disinfecting** our vehicles, stations, workspaces, and high-touch areas daily to keep everyone healthy.
- ✓ Agencies are **sharing data** between agencies and on this dashboard.
- ✓ Agencies will clearly **communicate rules and expectations**.

### Additional Paratransit Commitment:

- ✓ **Contact outreach** if a customer is reported as infected.

## Customer Responsibilities & Tips



- ✓ **Wear a mask when you ride.** Properly worn face coverings are mandatory.
- ✓ **Give others space** to keep everyone healthy. Plan your trip and avoid crowded vehicles.
- ✓ **Wash your hands** before and after your trip. Carry hand sanitizer with you.
- ✓ **Reduce the spread** of COVID-19 -- minimize talking when possible.

# MTC RATING

- Bay Area Transit Agencies have been tracking onboard statistics and sharing data with the MTC to ensure both passenger and employee safety.
- This data was then turned into a 0-5 star rating system based on compliance.
- SMART has received a 5 star rating across the metrics covered.

## Sonoma-Marín Area Rail Transit (SMART)

11/10/20 — 12/09/20

[sonomamarintrain.org](http://sonomamarintrain.org)

### Passengers

Properly Wearing Face Coverings ★★★★★

Vehicle Capacity for Safe Distancing ★★★★★

### Employees

Properly Wearing Face Coverings ★★★★★

Contact Tracing ★★★★★

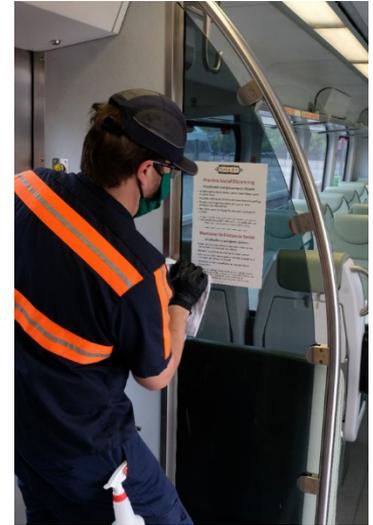
# CONCLUSION

- All procedures and modifications were designed and implemented in-house by SMART Vehicle Maintenance Staff.
- SMART recognizes that passenger & employee safety is paramount and has been and will continue to implement the most up-to-date technologies and practices to provide the community with a safe, high quality transportation option.

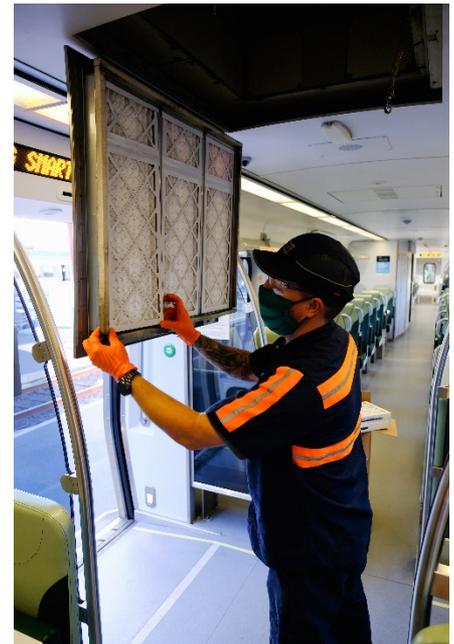




SMART's Vehicle Maintenance Team cleans each train twice a day



<p>Wear a facial covering</p> 	<p>Wash or sanitize your hands</p> 
	
<p>Watch your distance</p> 	<p>The 3Ws help reduce the risk of COVID-19</p> 



#StayingApartKeepsUsMoving