

POST-COVID PSV PRECAUTIONS

As the world emerges from the pandemic - and life begins to get back to normal - some of the changes made to how we live could well be here to stay. John Challen looks at the bus and coach market

Although COVID-19 is still with us, many of the restrictions put in place last year have been consigned to history. The effects of the virus still loom large in many public spaces and people are still encouraged to remember the original 'hands, face, space' motto when going about their daily lives.

When it comes to public transport, operators had the responsibility of protecting the public as well as their own staff. Keeping bus and coach services running in some capacity was vital as essential workers continued in their roles.

For Ian Foster, Metroline's engineering director, keeping the staff – especially bus drivers – safe and healthy was a major priority. Foster says Metroline is still supplying all the staff with COVID testing kits and masks. "Every driver has been cleaning their cab every time they want to with an antibacterial or an anti-COVID long-lasting bacterial disinfectant." However, that cleanliness regime has its own issues: "The knock-on effect of that has been lots more electrical issues on the buses because of the liquid going all over the place." This essential change in the maintenance schedule was due to remain until at least the end of September, with stronger disinfectants deployed to ensure signs of the virus are destroyed.

CHANGING BUSES

One of the biggest visual alterations to bus interiors was a redesign of the driver's cab. Assault screens might have been a regular sight on London buses for many years, but since the pandemic they have become compulsory. In addition, they have been improved to offer much more protection. "As part of the measures that were taken there, to ensure the virus was controlled, the screens were sealed," he explains. "Sealed to the roof and to the doors: we needed to make sure all the gaps in the doors are filled in."

For improved and safer communications, another permanent feature for the future will likely be an intercom. Foster says Metroline is currently testing a couple of options with TfL to see which one works best for mass adoption.

With the driver effectively hermetically sealed in their cab, the attention turns to the saloon area and the safety of passengers. "We have been working with University College London (UCL), which is now focusing on carbon dioxide levels in the saloon of the bus," reveals Foster. "It's never really been something that's been looked at, because with London buses, there are two doors, so the air is circulating all the time. But because of the way the virus was spreading and the lack of public knowledge, a huge amount of money is being spent looking at airflows."



One of the biggest issues – especially as we move into winter – is temperature control of the buses. At the moment, all of the hopper windows are permanently open – and shutting them is prevented due to special blocks put in place. "That's great for people because we're getting fresh air, but it's not great for the environment, because it means that the heating systems are not working effectively," says Foster.

"For every action, there's an equal and opposite reaction," he reasons. "And that's exactly what we're seeing. It's exactly the same with the drivers – they now sit in a hermetically sealed area of the bus, which means that the air-con and the heating has to be separated from the rest of the vehicle. So the driver's air-con means drawing air in from outside. If the temperature outside is 26° and 23° inside, you're drawing 26° air for the air-con system that would need to be cooled down to lower than 23°. The systems really struggled to do that."

LONDON CALLING

Like Foster and Metroline, TfL was happy to be guided by official advice when it came to carrying passengers during the pandemic. "From the outset of the pandemic, we followed evidence and Public Health England guidelines as much as we possibly could," says Tom Cunningham, head of business development, TfL.

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"So when they said face coverings should only be used by [vulnerable] people and medical professionals, we followed that guidance. And it wasn't absolutely clear at the start, how much of it was transmission through air and how much of it was to surface, for example."

UCL was also helpful to TfL when it came to protecting the driver and the passengers when social distancing was an issue. "In particular, they helped us very quickly identify where the risks were to the drivers," says Cunningham. "That led us to cover the holes on the polycarbonate part of the driver's screen, for example. They identified a gap of 5mm or less [should be] as close to zero as possible in terms of

transmission. So we put that on all of the vehicles as temporary measures, and now they are permanent solutions."

TfL is also looking at the issue of airflow and how operators can improve things to as customer numbers return to pre-pandemic levels. "We'll be looking at the issue of recirculated air and the use of heat pumps as we try and improve efficiency," says Cunningham. "What COVID has taught us, and particularly in the context of driver's cabs, is that recirculating air isn't a good thing to be doing anymore. So now we're having to change what we thought was the direction of travel to a new direction of travel that brings in a much greater proportion of fresh air. I'm not sure that

keeping the hopper windows open is the best solution, but it's here for the foreseeable future."

A POSITIVE FUTURE

As the dust settles over COVID, there's an argument to say that it has, in some ways, helped focus on customer and staff demands on PSVs.

At Metroline, experiences from elsewhere are proving an interesting proposition. "We've got a very big operation in Singapore and all the seats and surfaces are wipe-clean," says Foster. "If you've got plastic and someone is ill, it's much easier to clean, which is still important for the future. Or if someone spills paint on them, it's not so much of a problem if the same seats were covered in cushions."

Foster thinks there might be changes planned there, but it would need input from government scientists.

"The other thing I am convinced of is that the heating and air circulation will become a much higher priority for everyone," he adds. "That has come from our experiences with COVID. My personal belief is that money will be spent on investigating heat-absorbing materials, which can retain or release heat, depending on what you want. And I believe that the technology for alternative-powered buses will see a much greater focus on heat retention and removal."

For TfL, it was a case of frustration, but also realisation. "It has delayed the introduction of some things we were working on," partly due to staff furloughs, admits Cunningham. "But it has also shown us that there is often a better way of doing things. It's also brought us together with a common purpose. The feedback that we've had is that the relationships that have been built through this challenge - and some of the good stuff we delivered here - will make the delivery of difficult things easier in the future." **TE**