Micro Bird Water Infiltration & Water Management Sales Update #18-1210

Micro Bird Implements Water

"Management" to Addres

Water Infiltration

In a continued effort to address water infiltration concerns from customers, Micro Bird has introduced a new design to the drip rail over the passenger windows. Page #2 & #3 document these changes.

They have also tested and confirmed that a different sealing method under the 32" side windows on the G5 product addresses water infiltration from those areas as shown on pages #4-#6. Along with changing in production a Service Bulletin to address units in service will be forth coming.

Micro Bird is continuing to look at these areas as they feels that managing the water travel will give a much better result to water infiltration in the passenger compartment.













New design:

After (without drip rail / roof gutter raised by 5/16 in). The bottom of the drip rail is now unsealed, and the top of the windows are independently sealed with the roof sheet metal. This exposes the roof sheet metal edge. The top of the drip rail was and is still sealed (unchanged).



Figure 2: The esthetical aspect of the raised drip rail, now unsealed at the bottom

Former configuration / design:

Before (Lower drip rail / roof gutter). The bottom of the drip rail used to be sealed with the windows top and with the body between the windows.



Figure 3: The esthetical aspect of the former drip rail installation, with bottom sealed with the windows top

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ALL of our Service Updates can be found on the New York Bus Sales website

Or at the New York Head Mechanic website







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Testing & Validation

- Numerous vehicles have been tested with regards to water infiltration.
- The shower test has proven to replicate the water infiltration issue on former drip rail configuration, if, and only if, the "drip rail / gutter" is slightly separated from the roof.
- Once the drip rail is repositioned higher, the same shower test proved to address this type of cabin infiltration, even if the "drip rail / gutter" is slightly separated from the roof.
- Through thorough testing, no leaks were observed on the windows top, now independently sealed. Even a direct water projection (ex: garden hose), localized at the windows top, could not produce a single cabin infiltration.

In conclusion, the modification is helpful, and fully validated.







2018/12/04 #18-0006 Rev06



ENGINEERING CHANGE NOTICE

Subject: Sealant on outer window sill is removed to allow water to flow out.

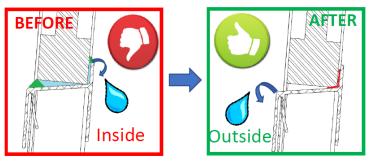
The G5 and Transit buses that are equipped with 32 inch windows, have aluminium window sills designed to let the water flow outside the vehicle, should any water infiltrate, regardless if the water comes from the roof, the gutter or the window itself. Once installed without sealant on the outer sill, the water infiltration inside the vehicle cabin is greatly reduced.

Introduction dates:

G5: No sealant, starting October 9th 2018
 Transit: No sealant, starting November 5th 2018

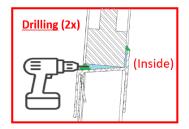
Sealed window at outer sill





Vehicles assembled before October 9th 2018 and delivered after November 8th have their outer sealant corners drilled to allow water to freely flow outside the vehicle. It prevents water from accumulating in the sill and between the windows and eventually drip inside the vehicle. DO NOT re-seal the holes.

REWORK SOLUTION





<u>Note:</u> A special drill bit, along with a service bulletin, will be issued to explain the rework procedure on delivered vehicle

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WARNING - DO NOT RESEAL THE WINDOW OUTER SILLS



DO NOT RESEAL THE WINDOW OUTER SILL.
THE ABSENCE OF SEALANT BELOW THE WINDOWS IS TOTALLY
NORMAL.

THIS WILL NOT COMPROMISE THE WATER INFILTRATION RESISTANCE OF THE VEHICLE BUT, IMPROVE THE WATER EVACUATION.

DO NOT RESEAL HOLES ON THE WINDOWS BUTTOM CORNER, AS THIS IS THE REWORK SOLUTION





Testing & Validation

- Numerous vehicles have been tested with regards to water infiltration.
- The shower test has proven to replicate the water infiltration issue on former window sill configuration, with sealant.
- Once the outer window sills sealant is removed, the same shower test proves to address this specific the cabin infiltration.
- Thorough the thorough testing, no leaks were observed due to the absence of sealant under the windows. Even a direct water projection (e.g.: garden hose) localized at the unsealed area could not produce a single cabin infiltration.
- Tests were also performed with "drilled sealant" (rework solution).
- While drilling, water dripping through the holes was immediately observed, supporting the added value of the drilling: it prevents most water accumulation at the window sills.

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- Under the shower, the drilled holes addressed this specific type of water infiltration, while insuring no other issue were created.
- No infiltration noted even under direct water projection (i.e.: garden hose spray).

In conclusion, the modification is helpful, fully validated and should not be altered / re-sealed under no circumstance.

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