

SmartRider™

Intelligent Leveling Technology

An industry-first in fully accessible, easy access level boarding from curb to aisle.



New Flyer developed SmartRider™ to create an unmatched accessibility experience for all passengers - enabling buses to kneel to variable heights and minimizing the slope difference between a low-floor ramp and the bus floor.

SmartRider™ is available on all Xcelsior® models, in one of two configurations, SmartRider™ and SmartRider™ Plus. SmartRider™ includes basic features on the front axle. SmartRider™ Plus applies to all axle systems, lending additional features such as curb-side kneeling, high ride/low ride and platform-level boarding.

Why SmartRider™?

The SmartRider™ system is a breakthrough in public transit accessibility, offering:

- Unmatched accessibility
- Increased stability and improved sway control
- Actively maintained ride height on uneven road surfaces
- Reduced energy consumption and lower maintenance
- Integrated suspension kneeling operation with SmartRider™ ramp to facilitate single operation for accessible boarding to a defined ramp angle

SmartRider™ versus SmartRider™ Plus

| Feature | SmartRider™ | SmartRider™ Plus |
|--------------------------------|---------------------------------|------------------|
| Front Kneel | ✓ | ✓ |
| Curb-Side Kneel | | ✓ |
| Enhanced Roll Stiffness | ✓ | ✓ |
| Over-Raise | ✓ | ✓ |
| High Ride / Low Ride | | ✓ |
| Diagnostics | ✓ | ✓ |
| Platform Level | | ✓ |
| Self-Leveling Auto Ramp Deploy | Available with SmartRider™ ramp | |

✓ Included ✓ Optional



Benefits SmartRider™ and SmartRider™ Plus



Optimized Boarding

Optimized boarding and unmatched line accessibility for all passengers. SmartRider™ and SmartRider™ Plus can achieve a 1:6 slope ratio.



Active Monitoring

Intelligent, independent monitoring of controlled wheel positions for enhanced stability.



Enhanced Safety

Obstruction detection enables ramp to detect an obstruction. Ramp will stop and reverse to a vertical position within the doorway.



Intelligent Kneeling

Intelligent technology that eliminates driver decision on when and how far to kneel.

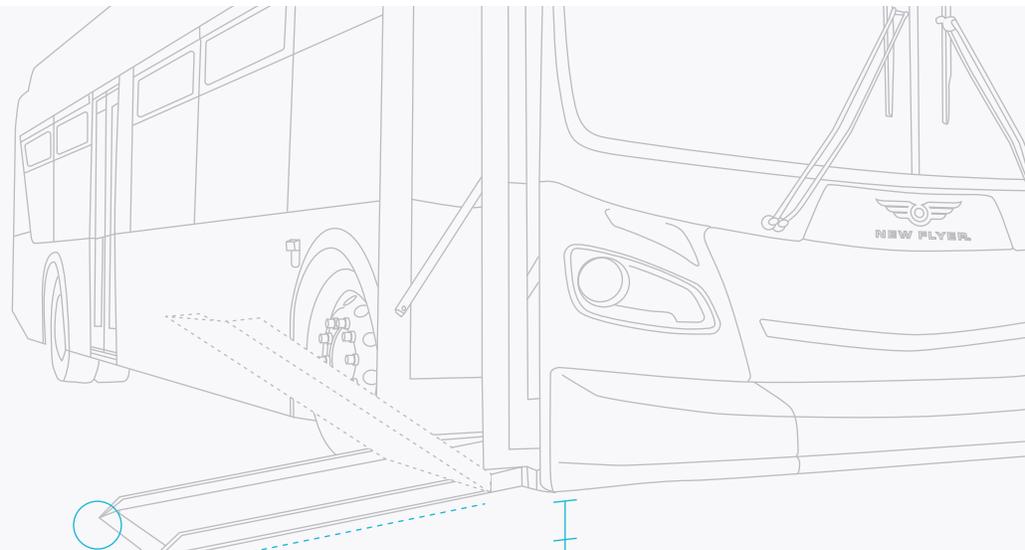


Enhanced Reliability

Easy diagnostics and fewer parts and maintenance with reduced air spring wear, no external linkage, and easily replaceable linear sensors.

With the addition of the SmartRider™ ramp, how does the entire system work?

The SmartRider™ ramp and suspension system work together to make ramp deployment and bus kneeling an automated operation. At a single touch of a button, a driver can deploy the ramp to enable the following:



1 Ramp platform deploys to position parallel with entranceway floor, providing a constant slope to the interior bus aisle.

2 System holds platform in the constant slope position, then starts kneeling the bus via SmartRider™ suspension system.

3 Kneeling stops automatically when the ramp contacts the curb.

4 If full kneel does not achieve ground contact, then platform continues lowering until ground is reached.