New and improved Load Compensation

Powerchairs often produce varying behaviour when turning slowly on soft surfaces such as a rug. This can result in castors locking followed by a sudden jolt when they finally release. Another concern is going through doorways or up to a table as a number of corrective actions are needed to get the powerchair to the correct position. Lastly, there can be poor hold on slopes which can cause the powerchair to roll back when it stops and starts driving again. This can leave the individual feeling nervous and dent their confidence in the powerchair or control system.

There is a direct relationship between motor speed and resistance. For example:
- When a powerchair is driven over a rug, the speed could be low but the resistance level can be high as it is a challenging surface.
- When a powerchair travels along a flat path, the speed might be high but the resistance will be low.

The powerchair needs to be able to adapt to each situation to give the client a smooth, consistent and far more comfortable drive experience.

Dynamic Load Compensation

Built into the new Invacare® LiNX system, dynamic load compensation ensures motor resistance levels are set correctly for the individual which:
- Allows for more accurate and predictable control over different surfaces.
- Makes going through doorways or approaching tables simple and straightforward with its low speed and creep control.
- Keeps both speed and direction consistent when it comes to surface change, camber or incline.
- Produces improved hold on slopes and reduces the effect of castor lock on soft surfaces.

Load compensation is usually set during the manufacturing process and is rarely changed in the field due to the need of an experienced technician and the difficulty in getting it right. As a powerchair ages, the ideal value of load compensation changes due to the motors bedding in or wearing (at different rates) which means the drive experience changes and varies for the individual over time.
Adaptive Load Compensation

This exciting and innovative technology gives the powerchair the intelligence to learn the appropriate values by constantly measuring the motors whenever the powerchair is being driven. The measurements are used to make small adjustments to the load compensation value being utilised.

The fast learn function allows the powerchair to learn the resistance of the new motor so even if the resistance of each motor is significantly different, the powerchair will drive as if it has two identical motors.

The innovative dynamic and adaptive load compensation technology in Invacare® LiNX has been designed with clients, dealers and therapists in mind. The Simply SMART technology is easy to maintain and allows for accurate control, providing a comfortable and predictable driving experience.

To find out more about load compensation, take look at the “What is dynamic and adaptive load compensation” video on the LiNX website.

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