

Intuitive Active swing Active support

























INTUY® Knee



Brushless Motor with a Spindle

Powered assistance and active propulsion

Integrated Battery Pack and BMS

The proprietary battery pack and battery management system (BMS) enables high instantaneous power/current output. It also captures the regenerated energy by the motor, providing long autonomy

Dual-core ILK Brain: MCU+FPGA

The ILK Brain processes sensory signals and sends out motion commands 2000 times per second, fastest ever

- **Inertial Measurement Unit (IMU)** High quality MEMS sensors measure orientation and motion in realtime. Terrain changes are detected and user intentions are predicted.
- **Knee Torque Sensor** Knee torques are measured and feedback to the ILK Brain to ensure precise knee motion.
- **Ground Reaction Force (GRF) Sensor** GRF sensor measures the interaction with ground. Terrain changes and human motion are tracked accurately.
- Bluetooth Bluetooth low energy (BLE) allows real-time data streaming and parameters adjustment.

Benefits:

- Powered assistance and active propulsion, especially during standing up, stair and ramp ascent.
- Active swing and powered extension improves gait symmetry and reduce fatigue from the back and the intact leg.
- Step-over-step stair ascent. No exotic action is needed to trigger stair ascent.
- Automatic user intention detection and mode switching for most daily activities. Seamlessly transition from walking to running.
- Stumble detection and fall prevention algorithms
- Regeneration (charge the battery) during
- Fully standalone operation with no compulsory phone/remote connection.
- Parameter adjustment by prosthetist using Intuy app, on Android or iOS, phone or tablet.
- Additional information such as daily/ total step counts can be provided by the app.

Specifications:

ILK-1B/ILK-1W Model number Black/Silver Color P6, 125 kg Weight rating Weight (with battery) 2.4 kg 120 deg Max knee flexion ~44 h Battery standby time:

21+ km at a 29% Nominal walking range battery drop

2 h Charging time

Protection level IP45, weatherproof

Mechanical connection: Male pyramid

Standard warranty 2 years

50 dB @15cm Max noise level (without cover)

100 Nm Max joint torque