



# ALLUX2™



Manufacturer

**Nabtesco Mobility Assist**

Assistive Products Department, Accessibility Innovations Company, Nabtesco Corporation  
Uozakihamamachi 35, Higashinada-Ku, Kobe, 6580024 Hyogo, Japan  
Tel: +81 (0)78 413 2724, FAX: +81 (0)78 413 2725  
Email : [welfare@nabtesco.com](mailto:welfare@nabtesco.com) / Web: <http://welfare.nabtesco.com/prosthesis/>

CAT.APE32A-080-2009-(3P)

**Nabtesco Mobility Assist**



**NEW**

## Improved Usability

A PC and/or remote control is no longer required! A certified prosthetist can quickly and easily program and adjust ALLUX 2 from a Bluetooth-enabled smartphone. The patient is also able to easily switch modes and check battery level with a smartphone.

## Improved Durability

The introduction of new needle bearings provides smooth movement and increased durability while also improving the water resistance rating of ALLUX 2.

## Improved Flexibility

With a new maximum flexion angle of 180 degrees (up from 155°), ALLUX 2 offers more range of motion than any other microprocessor knee on the market today.

# 4-Bar linkage design

ALLUX 2 is often referred to as a “natural knee” due to its movement which closely mimics that of a human knee joint. The 4-Bar linkage design allows smooth transition to swing phase and with increased toe clearance, helps to reduce the risk of a fall.



# Total phase microprocessor control

ALLUX 2 adapts automatically in both stance and swing phases providing stumble recovery even in a flexed position. Traditional mechanical hydraulic controls limit knee movement due to constant resistance. Microprocessor control of the hydraulic unit provides the ideal resistance based on walking speed. This allows for the patient to focus on their environment and activity and not their prosthesis, thus expanding flexibility in their daily life.

# The world's first total phase MPK 4-Bar linkage design

Enhanced function of swing phase  
And a more natural gait



The microprocessor controlled hydraulic cylinder provides a smooth swing phase at various walking speeds. Finely tuned response, coupled with the 4-Bar linkage, allows the user to walk with a natural gait. The needle bearings introduced with ALLUX 2 have increased the smoothness and fluidity of the knee's movement to a new level.

Increased toe clearance  
Reduced risk of stumbling



Compared to a single axis knee joint, the 4-Bar linkage shortens the length from knee center to toe during swing phase. This results in increased toe clearance and greatly reduces the risk of stumbling.

Enhanced safety  
for stumble recovery



ALLUX 2 constantly monitors the knee position and movement and responds to abnormal situations. For instance: if the prosthesis gets stuck on an obstacle during swing phase, the knee will detect this adverse event and immediately increase resistance to prevent knee buckling.

Stance yielding function  
for going down stairs, slopes,  
and level walking



The stance yielding function allows patients to smoothly walk down stairs and slopes step-over-step. If your patient already has experience with this functionality, they will easily adjust to yielding with a 4-Bar linkage design. In addition, ALLUX 2 allows for individuals to walk with a natural knee flexion movement to help reduce the shock during initial contact with the ground.

## Long Battery Life

Emergency battery included for security



ALLUX 2 battery life is approximately 4 days (5000 steps on prosthetic side). The charge time for an empty battery is only 3 hours and an emergency battery is included in case of emergency.

## Low Profile for Long Residual Limbs



While the patient is seated, the 4-Bar linkage folds under itself and allows for a more natural sitting position.

## Greatest flexion angle in a microprocessor knee



ALLUX 2 offers a knee flexion angle of 180 degrees, more than any other microprocessor knee available. This increased range of motion is great for activities like biking, kneeling, or changing shoes.

## Safety lock function



When the knee is flexed, loaded, and is stationary for a preset period of time (3/4 to 3 seconds), flexion will be automatically locked until it is extended. With ALLUX 2, Safety lock function has been improved to include a vibration from the knee-joint, letting the user know Safety lock has been engaged.

## Selecting 5 different modes with a smartphone



With a Bluetooth connected smartphone, the user can easily and conveniently select between up to five different pre-programmed modes to fit their current activity or environment for the highest level of versatility. From free swing, varying locking positions, or additional walking modes, users can easily change the function of ALLUX 2 with the push of a button in the remote control App.

## New Communication Bluetooth



The stability and reliability of the wireless programming has been improved through Bluetooth connectivity via iOS or Android smartphones.

## Specification

| Type                        | NE-Z41  | NE-Z41SH          |
|-----------------------------|---|-------------------|
| Name                        | ALLUX 2   |                   |
| Proximal connection         | Pyramid   | Threaded head     |
| Height                      | 11 1/2 in (295mm)   | 11 1/3 in (287mm) |
| Knee weight                 | 3.4 lbs (1510g)   | 3.4 lbs (1520g)   |
| Max. flexion                | 180°  |                   |
| Weight limit                | K3(MOB3):125kg(275lb)<br>K4(MOB4):100kg(220lb)  |                   |
| Battery                     | Lithium ion battery   |                   |
| Battery life                | approx. 4 days<br>(5000 steps per day on prosthetic side)   |                   |
| Supplemental backup battery | Lithium ion battery   |                   |
| Water resistance            | IP44  |                   |
| Activity level              | K2 ~ K4   |                   |
| Communication               | Bluetooth   |                   |
| Application software        | <ul style="list-style-type: none"> <li>• Adjustment App for Prosthetists (iOS and Android)</li> <li>• Remote Control App for Users (iOS and Android)</li> </ul> |                   |

\*Specifications are subject to change without notice.

## Included to Components

ALLUX 2  
 Charging port cap NE-CC01  
 Power OFF cap NE-CC02  
 Charger NE-BC01  
 AC adapter NE-AD01  
 Backup battery NE-SB01  
 Backup battery case NE-SC01  
 Extension cable NE-CL02  
 Backup battery charging cable NE-CL01

## Suggested LCODES:

Medicare – L5613, L5856, L5845, L5848  
 Non-Medicare – L5613, L5856, L5845, L5848, L5925, L7367, L5990 (K4 only), L5999 (Automatic stance lock)



YouTube channel  
 ALLUX Nabtesco Mobility Assist

