

Instructions for use RAY Knee Holder System

SYNBONE
better education outcome

Product overview / Packing and unpacking



RAY Knee Holder System case



Upper packaging inlay



Lower packaging inlay



RAY Knee Holder System components

RAY Knee Holder System consists of:

1. RAY Knee Holder System case
2. Base plate
3. Supporting column
4. Guiding rail
5. Reference foot left
6. Hex wrench

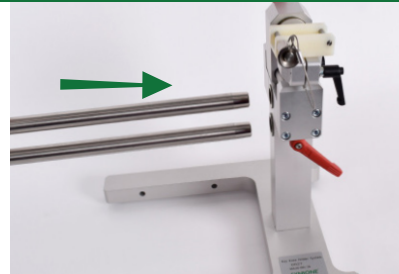
Assembling



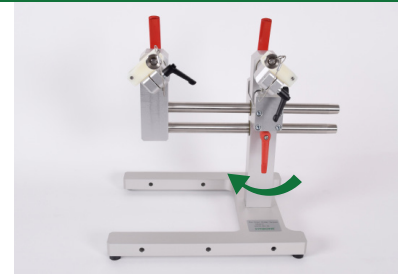
Insert the supporting column into the designated holes of the base plate



Tighten the mounting screw with the hex wrench

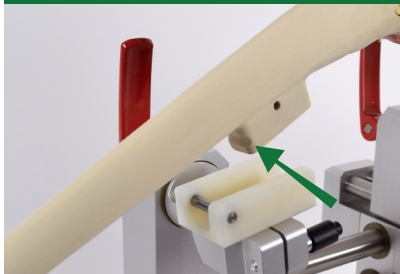


Insert the guiding rail into the designated holes of the supporting column

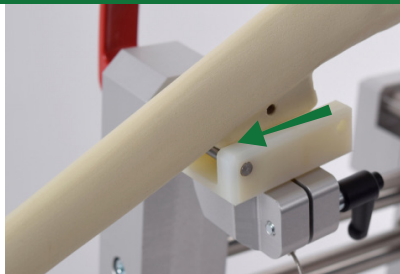


To lock the guiding rail tighten the red locking lever

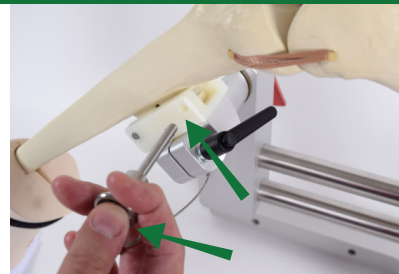
Basic setup / Attaching knee model to the holder



Place the bone model with notch into the first notch holder



Make sure the cutout of the notch fits to the pin of the notch holder



Press and hold the button and insert the locking bolt into the hole of the notch holder...



...until stop



Repeat the same procedure for the second notch holder

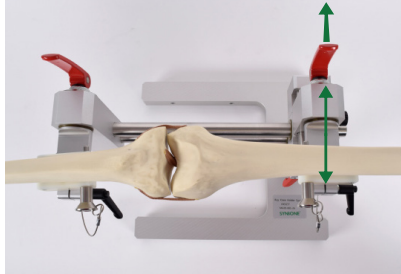
Instructions for use RAY Knee Holder System

SYNBONE®
better education outcome

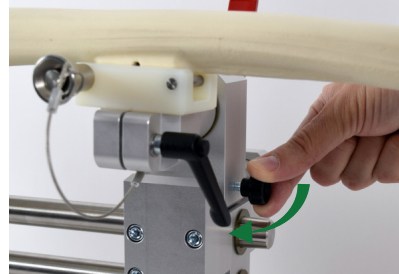
Basic setup / Adjustment of the leg axis



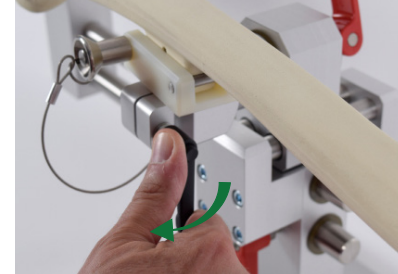
Position the leg in extension



To align the leg axis, open the red locking lever and move the bracket holder into the desired position...



...and tighten the black locking screw

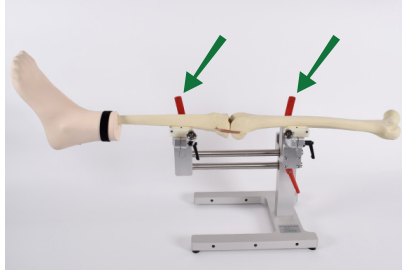


Tighten the black locking lever on the supporting column

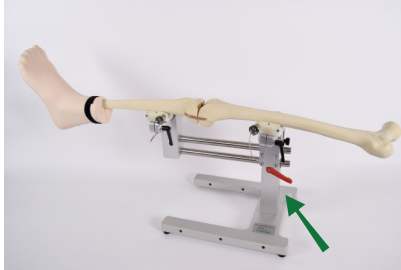


Tighten the black locking lever on the guiding rail

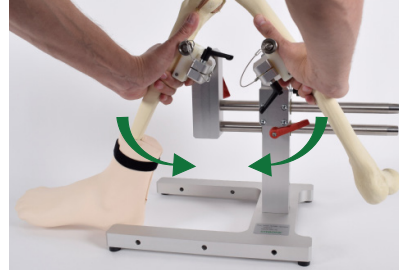
Setting up flexion and extension



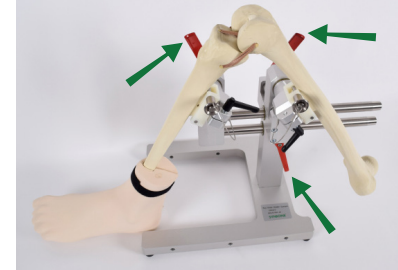
Loosen the two upper red locking levers



Loosen the lower red locking lever



Position the leg in the required flexion



Tighten all the red levers



To set the leg in extension loosen all the red levers and pull on the guiding rail for the required extension

Tips & Tricks: Setup for assessing the flexion and extension gap, rom (range of motion) etc.



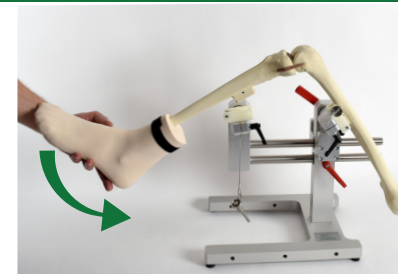
Remove the locking bolt of the notch holder on the guiding rail



Detach the bone model from the notch holder on the guiding rail



The knee is ready to perform the desired verifications



Instructions for use RAY Knee Holder System

Tips & Tricks: Adjusting the clamping force



If the red locking lever is too loose, turn the silver ring clockwise and lock the lever



If the red locking lever is too tight, turn the silver ring counter-clockwise and lock the lever

Tips & Tricks: Inserting and removing the locking bolt



The locking bolt has a security mechanism on the tip which can be released by pushing the button



Press the button to release the security mechanism when inserting and removing the locking bolt

Possible table mountings



0027.19 RAY Knee holder C-clamp
Optional accessory for a secure table mounting



Version 1



Version 2



Version 3

Optional accessories to the RAY Knee Holder System



RAY Knee Holder System can also be used for HTO training



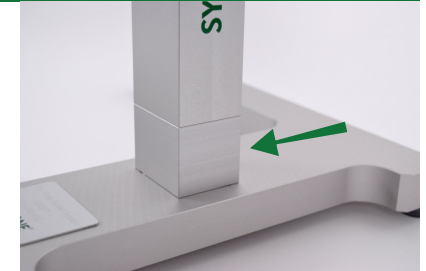
0027.30 RAY Knee Holder Adapter Set for HTO training



RAY Knee Holder System can also be used for DFO training



0027.35 RAY Knee Holder Adapter Set for DFO training



0027.25 RAY Knee Holder Extension Adapter Set to increase the working height by 40 mm

Instructions for use

RAY Knee Holder System



Intended use

The **RAY Knee Holder System** is specially designed for Total Knee Arthroplasty workshops and trainings. This system holds various **SYNBONE®** knee and single bone models with notches in a surgical position and can be used for surgical education. The **RAY Knee Holder System** is not intended to be used in the operation room.

SYNBONE® guarantees best results with the **RAY Knee Holder system** only by using the **SYNBONE® knee models with notch** and the **SYNBONE® single bone models with notch**. The notch holders prevent the bones from slipping or moving while surgeons practice various procedures for the total knee replacement. Find out more about **SYNBONE®**'s complete product portfolio for Total Knee Arthroplasty trainings on www.synbone.com.

Cleaning and storage

Clean the **RAY Knee Holder System** with a damp cloth after each use.
No lubrication is necessary.

To guarantee a long life of the **RAY Knee Holder System** we recommend a storage in the **RAY Knee Holder case**.

Accessories

- 0027.12 RAY Notch Holder and bolt 3rd generation as couple
- 0027.17 RAY Knee holder hex wrench no. 8
- 0027.19 RAY Knee holder C-clamp (Optional accessory for a secure table mounting)
- 0027.20 RAY Knee holder reference foot left
- 0027.25 RAY Knee holder extension adapter set (Option to increase height of the supporting column by 40 mm)
- 0027.30 RAY Knee holder adapter set for HTO (Option for High Tibia Osteotomy Training)
- 0027.35 RAY Knee holder adapter set for DFO (Option for Distal Femur Osteotomy Training)
- 0027.91 Optional Trolley wheels to RAY Knee Holder Case

Contact us

SYNBONE AG

Tardisstrasse 199
7205 Zizers · Switzerland
Phone +41 81 300 02 80
sales@synbone.com · www.synbone.com

SYNBONE SDN BHD

No. 40 - 41, Jalan i-Park 1/3
81000 Bandar Indahpura Kulai, Johor · Malaysia
Phone +60 766 082 20
sales@synbone.com · www.synbone.com