## Maintenance System Ankle Joints with plug + go Modularity

This online tutorial shows the maintenance of our system ankle joints with plug + go modularity:

- NEURO CLASSIC
- NEURO HISWING
- NEURO SWING
- NEURO SWING-CLASSIC
- NEURO SWING 2
- NEURO VARIO 2
- NEURO VARIO-CLASSIC 2
- NEURO VARIO-SPRING 2
- NEURO VARIO-SWING

The system components must be regularly checked for wear and functionality. Here, we give you a detailed overview of the work steps to be taken at every maintenance, using the NEURO SWING as an example.

You will find further information on the system ankle joints in the instructions for use.

Furthermore, you can find the online tutorials for each system ankle joint with plug + go modularity under the Joint Assembly section.

 C
 +49
 4131
 24445-0
 □

 □
 +49
 4131
 24445-57
 1



FIOR & GENTZ

Gesellschaft für Entwicklung und Vertrieb von orthopädietechnischen Systemen mbH Dorette-von-Stern-Straße 5 21337 Lüneburg (Germany) © +49 4131 24445-0 ⊟ +49 4131 24445-57



Step 1/13



You can find information on system components that have to be checked particularly carefully during maintenance in the instructions for use under "Maintenance".

FIOR & GENTZ Gesellschaft für Entwicklung und Vertrieb von orthopädietechnischen Systemen mbH

Dorette-von-Stern-Straße 5 21337 Lüneburg (Germany)

© +49 4131 24445-0 ⊟ +49 4131 24445-57



## NEURO SWING 24mm

The following components are affected by the constructional differences of the NEURO SWING system ankle joint with 24mm system width: the joint's upper part, cover plate and system stirrup. However, the maintenance of the system joint is exactly performed as described in the next work steps. Only the check and repair of the feather keys with pin does not apply.

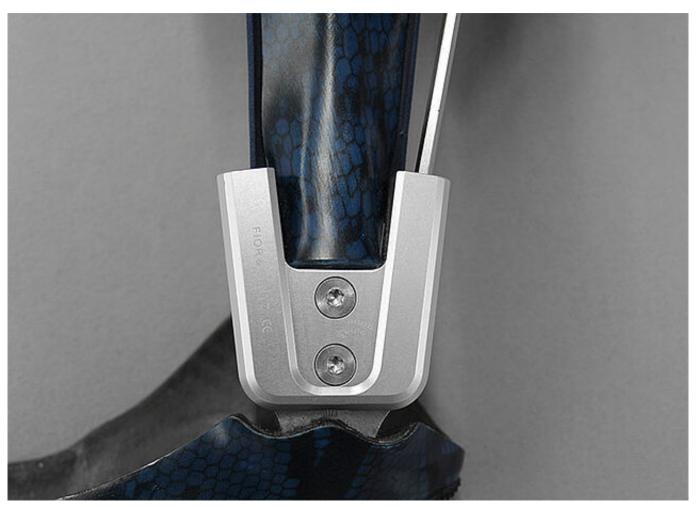
*Note: the system stirrup's head made of steel and the system stirrup's body made of titanium are already pressed with each other tightly. This connection must not be detached.* 

FIOR & GENTZ

Gesellschaft für Entwicklung und Vertrieb von orthopädietechnischen Systemen mbH

Dorette-von-Stern-Straße 5 21337 Lüneburg (Germany)





Demount the spring units in order to examine them. Check if the system joint moves without lateral play.

FIOR & GENTZ

Gesellschaft für Entwicklung und Vertrieb von orthopädietechnischen Systemen mbH Dorette-von-Stern-Straße 5 21337 Lüneburg (Germany)



Step 4/13



Hold the lower leg shell and try to move the foot shell in pronation-supination direction. If there is lateral play, this can indicate loosened screws and/or worn out sliding washers.

FIOR & GENTZ

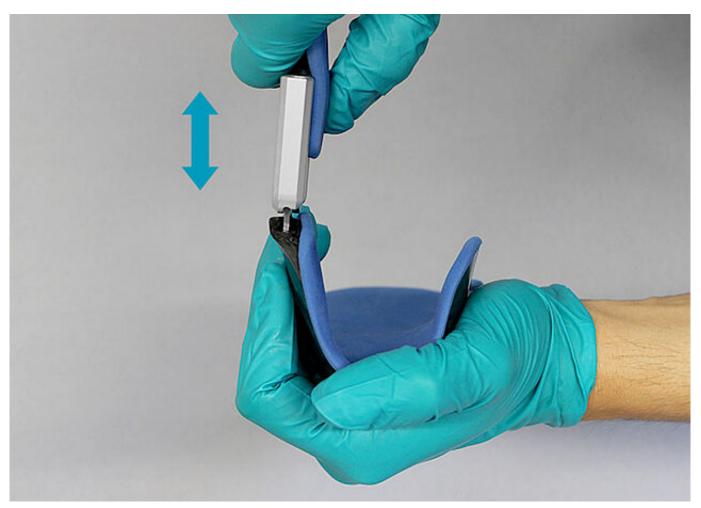
Gesellschaft für Entwicklung und Vertrieb von orthopädietechnischen Systemen mbH

Dorette-von-Stern-Straße 5 21337 Lüneburg (Germany)

© +49 4131 24445-0 Ӛ +49 4131 24445-57



Step 5/13



Check if there is play around the axis. If there is play, the bearing nut and the sliding bushing should be replaced or inserted if necessary.

FIOR & GENTZ

Gesellschaft für Entwicklung und Vertrieb von orthopädietechnischen Systemen mbH Dorette-von-Stern-Straße 5 21337 Lüneburg (Germany)





Check if the system joint moves freely. Bring the system joint in plantar flexion/dorsiflexion. If the system joint does not move freely, mount the next thinner sliding washer or clean the system joint thoroughly.

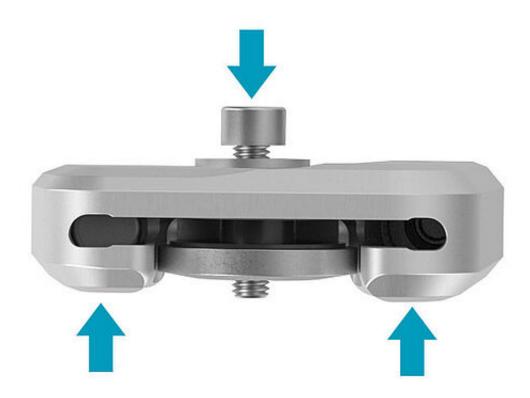
*Note: at a bilateral orthosis, only check one system joint at a time.* 

FIOR & GENTZ Gesellschaft für Entwicklung und Vertrieb von orthopädietechnischen Systemen mbH

Dorette-von-Stern-Straße 5 21337 Lüneburg (Germany) © +49 4131 24445-0 Ӛ +49 4131 24445-57







Disassemble the system joint.

- Unscrew both countersunk flat head screws from the cover plate.
- Place the washer on the cover plate and screw the pressing screw, not entirely, into the thread of the first screw.
- Push the joint's upper part and the cover plate apart by exerting force on them (see arrows). This can be achieved by using a vice or by controlled knocks.
- Remove pressing screw and washer.
- Clean all system components and check them carefully.

Dorette-von-Stern-Straße 5 21337 Lüneburg (Germany)

€ +49 4131 24445-0
 ₽ +49 4131 24445-57





- damaged sliding washer
- worn out bearing nut
- worn out screw

Exchange the sliding washer, the bearing nut or the screw for a new system component when they are worn out.

C +49 4131 24445-0
 ≥ +49 4131 24445-57



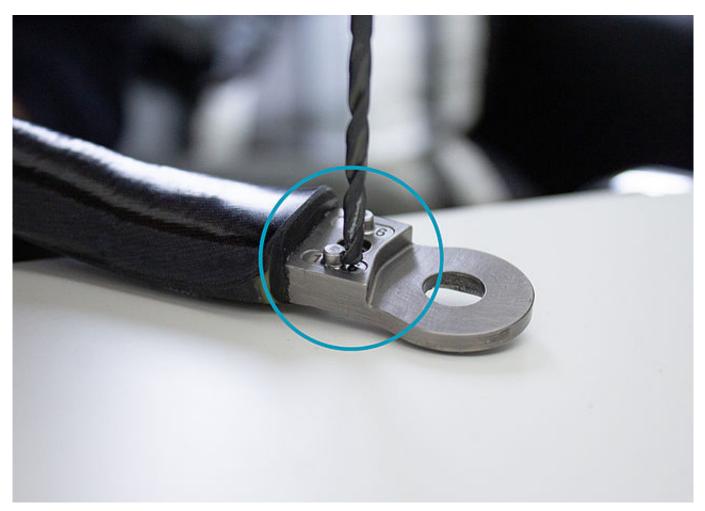


Replace the sliding bushing if it is worn out.

Gesellschaft für Entwicklung und Vertrieb von orthopädietechnischen Systemen mbH Dorette-von-Stern-Straße 5 21337 Lüneburg (Germany)



## Step 10/13



• broken feather keys with pin

Replace the feather keys with pin if they are defective.

Here you can find a detailed guide on replacing the feather keys with pin.

DDDDDDDNote: not relevant for the NEURO SWING 24mm.

𝔅 +49 4131 24445-0
 𝔅 +49 4131 24445-57



Step 11/13



• worn out spring units

Particularly check the disc springs for wear. If you should notice e.g. a breakage, you must exchange the entire spring unit!

If the disc springs have shifted, they don't have to be replaced. Realign shifted disc springs with pliers and grease the disc springs laterally with spray oil in order to increase the useful life of the spring units.

Proceed as follows when regreasing:

- Lay the spring unit down horizontally.
- Spray the spring unit with the spray oil.
- Rotate the spring unit slightly and spray it again.
- Repeat this process three times.

*Note: spring units with coil springs can be greased with the regular orthosis joint grease as well as with the spray oil.* 

Replace the coil springs if they are damaged.

FIOR & GENTZ Gesellschaft für Entwicklung und Vertrieb von orthopädietechnischen Systemen mbH

Dorette-von-Stern-Straße 5 21337 Lüneburg (Germany)





Check the O-ring for securing the spring unit and the O-ring for securing the alignment screw. Replace the O-rings if they are worn out.

Dorette-von-Stern-Straße 5 21337 Lüneburg (Germany)

 𝔅
 +49
 4131
 24445-0
 𝔅

 ➡
 +49
 4131
 24445-57
 𝔅



Step 13/13



Follow the online tutorial for the joint assembly of system ankle joints with plug + go modularity in order to reassemble the system joint.

FIOR & GENTZ

Gesellschaft für Entwicklung und Vertrieb von orthopädietechnischen Systemen mbH Dorette-von-Stern-Straße 5 21337 Lüneburg (Germany)



Last Update: 27 March 2024

FIOR & GENTZ

Gesellschaft für Entwicklung und Vertrieb von orthopädietechnischen Systemen mbH Dorette-von-Stern-Straße 5 21337 Lüneburg (Germany) © +49 4131 24445-0 ≣ +49 4131 24445-57

