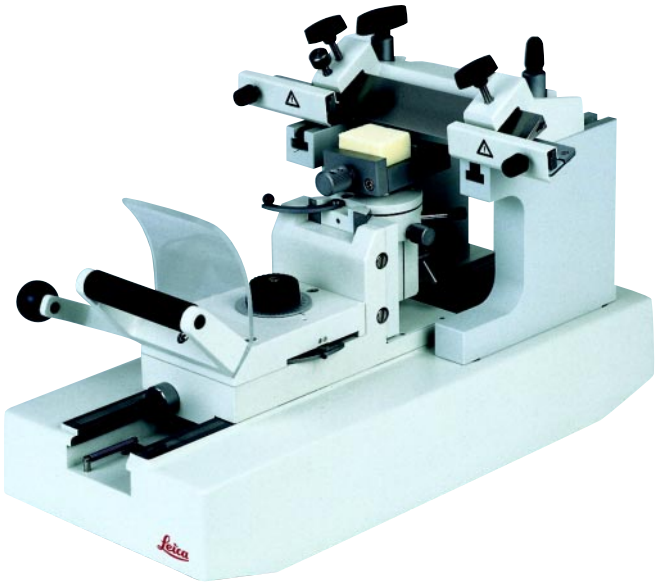

Leica SM2400

Sledge microtome

Instruction manual

Leica SM2400 - Sledge microtome
V1.1 English – 12/89

Always keep this manual near the instrument!
Read carefully prior to operatimg the instrument!

Leica
MICROSYSTEMS

NOTE

The information, numerical data, notes and value judgments contained in this manual represent the current state of scientific knowledge and state-of-the-art technology as we understand it following thorough investigation in this field.

We are under no obligation to update the present manual according to the latest technical developments, nor to provide our customers with additional copies, updates etc. of this manual.

For erroneous statements, drawings, technical illustrations etc. contained in this manual we exclude liability as far as permissible according to the national legal system applicable in each individual case. In particular, no liability whatsoever is accepted for any financial loss or consequential damage caused by or related to compliance with statements or other information in this manual.

Statements, drawings, illustrations and other information as regards contents or technical details of the present manual are not to be considered as warranted characteristics of our products.

These are determined only by the contract provisions agreed between ourselves and our customers.

Leica reserves the right to change technical specifications as well as manufacturing processes without prior notice. Only in this way is it possible to continuously improve the technology and manufacturing techniques used in our products.

For the instrument serial number and year of manufacture, please refer to the name plate at the back of the instrument.

Published by:
Leica Microsystems Nussloch GmbH
Heidelberger Str. 17 - 19
D-69226 Nussloch
Germany
Telephone: +49 (0) 62 24 143-0
Fax: +49 (0) 62 24 143-200
eMail: histo_info@leica-microsystems.com
Internet: http://www.histo-solutions.com

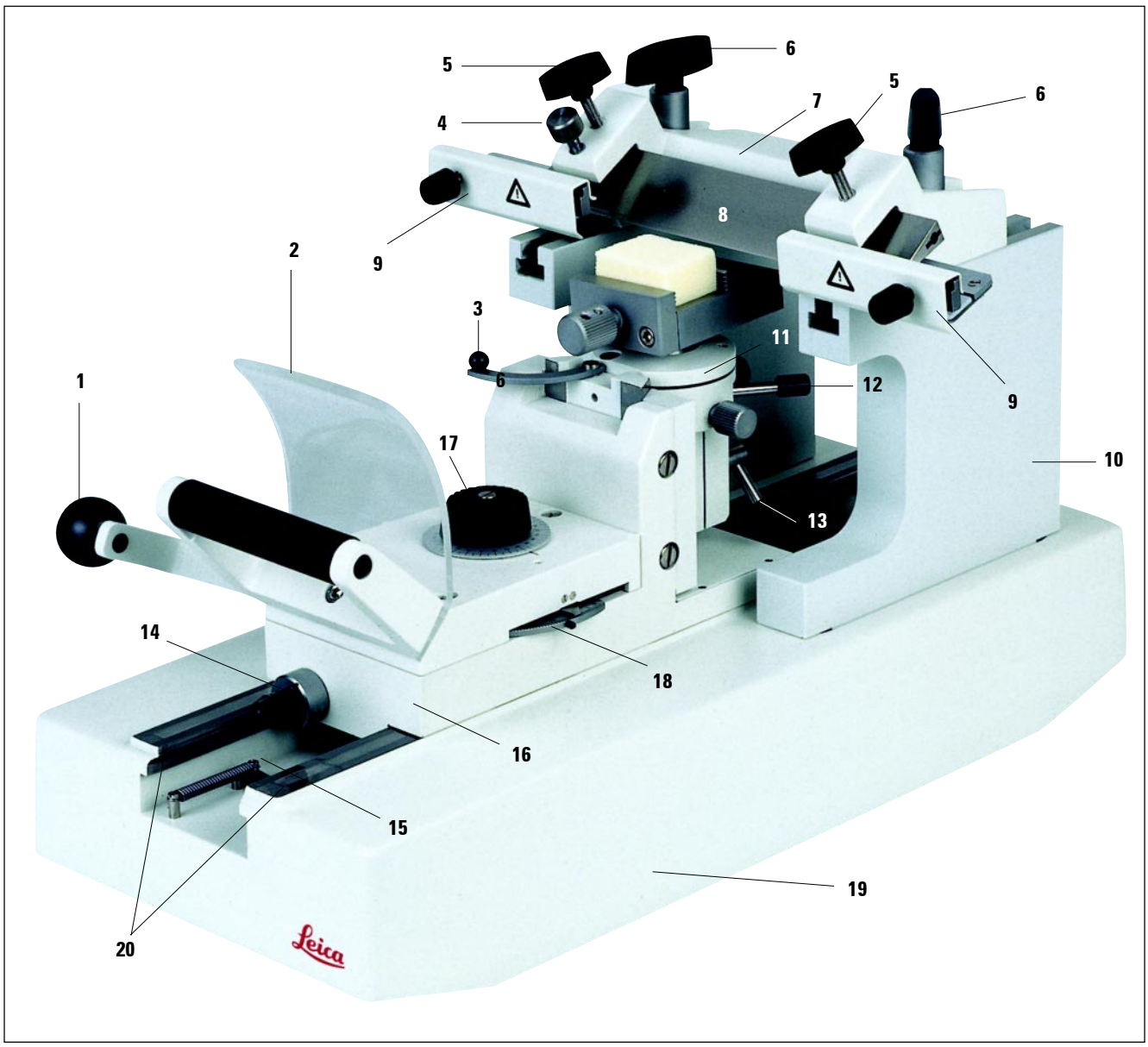

Fig. 1 Leica SM2400 Sledge microtome

1 Coarse height adjustment lever
2 Hand guard
3 Coarse height adjustment clamp lever
4 Tilt angle adjustment screw
5 Knife clamp screw
6 Knife holder clamp screw
7 Knife holder with knife guard
8 Knife
9 Knife guard (closed)
10 Knife block
11 Ball joint
12 Ball joint clamp
13 Specimen holder clamp lever
14 Sledge clamp
15 Stop for automatic specimen feed
16 Sledge
17 Specimen holder manual height adjustment
18 Section thickness adjustment
19 Base
20 Guide rails

After removing the metal bands and the carton top, use the supplied key to unscrew the four socket head screws (**2.2**)* from below.

Lift the microtome off the wooden block (**2.1**) and place it on a stable workbench.

After unscrewing the socket head screw (**2.3**), remove the sledge clamping block (**2.4**).
Clean the guide rails (**1.20**) with petroleum spirit and apply the supplied oil to be found in the accessories box (see p. 8, Cleaning and Maintenance).

Slide the knife holder (**1.7**) into the knife block (**1.10**) and clamp with the wing nut (**1.6**). After loosening the clamp lever (**1.12**), rotate the specimen clamp (**3.4**) until the clamp screw (**3.1** or **5.1**) faces the operator.

*(**2.2**), e.g., means figure 2, component 2

1 Wooden block (for transit)
2 Microtome-block screws
3 Socket head screws
4 Sledge clamping block

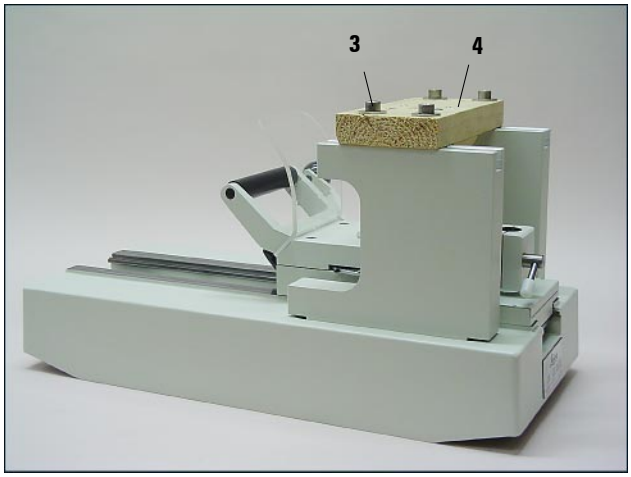

Abb. 2

Operation

Move the sledge to the front stop and clamp with the lever (**1.14**). Move the coarse height adjustment clamp lever (**1.3**) to the right and lower the specimen holder (**3.4**) as far as possible (lever **1.1**).

Clamp the specimen in the holder (screw **3.1** or **3.5**).

Set the knife tilt angle (scale on left of knife holder) using screw (**1.4**) before inserting the knife and clamping with the two wing nuts (**1.5**).

Loosen the sledge clamp (**1.14**).

Slide the specimen under the knife. Loosen the universal joint clamp (**3.7**) and align the specimen with the knife. Retighten the clamp.

Move the specimen using lever (**1.1**) until it is a few millimeters from the knife (not touching). Clamp the specimen holder in this position by turning the lever (**4.2**) to the left.

Using the manual height adjustment control (**4.1**), and with to and fro movements of the sledge, trim the specimen until the surface is flat.

Set the section thickness (**4.3**). Move the sledge back to the rear stop, and then forwards under the knife to make the actual sections.

1 Specimen clamp screw
2 Specimen sledge
3 Specimen holder
4 Specimen x/y alignment screws
5 Universal joint
6 Specimen holder clamp
7 Universal joint clamp

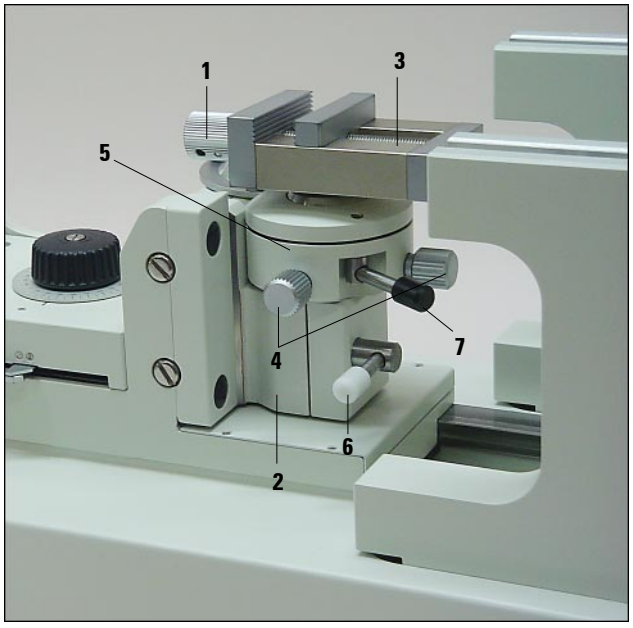

Fig. 3 Kardangelenk-Klemme

1 Manual specimen holder height adjustment (coarse)
2 Coarse height adjustment clamp lever
3 Section thickness control

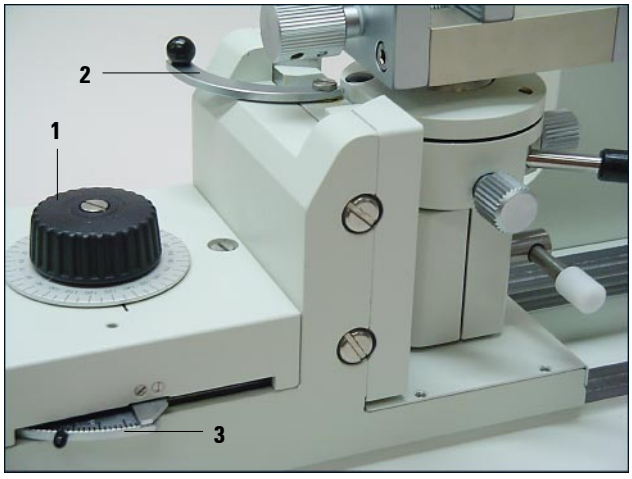

Fig. 4

Accessories

The universal joint and the large specimen stage can be easily interchanged after pressing the clamp lever (**3.6**) down and removing the specimen holder. The knife holder with integrated guard can be replaced with the acute angle version (Fig. 7).

The safety caps must be placed over the knife ends immediately it is inserted in the holder.

If thick specimens are to be sectioned, the knife holder can be raised by means of spacers (Fig.7). These are fixed to the knife blocks (**1.10**) using socket head screws.

The knife ends must be covered by the supplied caps.

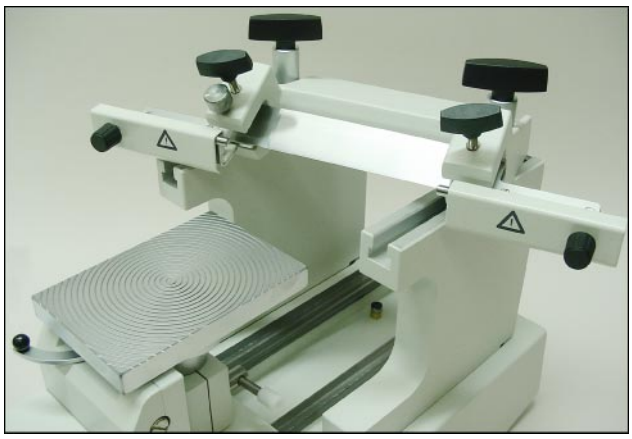

Fig. 5 Large (90 x 130 mm) specimen stage

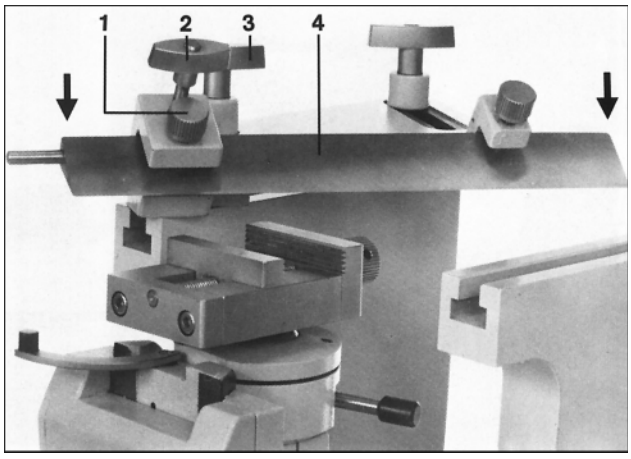

Abb. 6 Acute angle knife holder

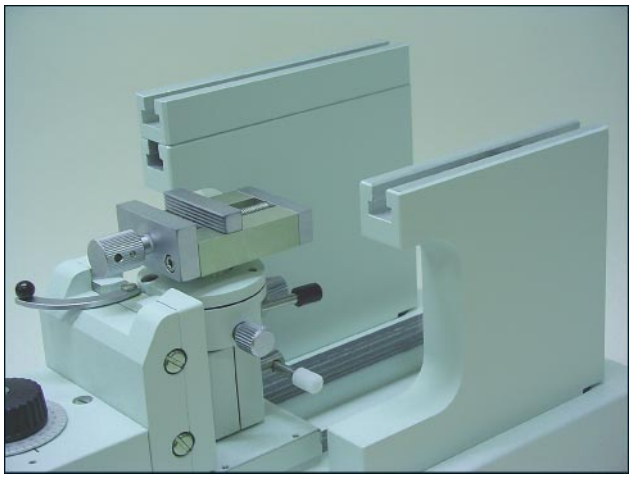

Fig. 7 Spacer on the left knife block

Cleaning and Maintenance

The sledge guide rails (**1.20**) must always be kept clean. We recommend xylene or petroleum spirit. Cleaning is accomplished most easily by moving the sledge to and fro several times whilst cleaning both sides of the rails. This ensures that dirt and tissue particles which have collected under the sledge are removed.

After cleaning, the guide rails must be well oiled using the special oil No. 601 available from us:

50 ml	Order No. 0336 21783
500 ml	Order No. 0336 21818

The specimen holder guide rails (**3.2**) should be cleaned as follows:

Move the specimen holder to its uppermost position using lever (**1.1**), then clean the rails with xylene or petroleum spirit. No. 410 grease should then be applied.

When not in use, the microtome should be protected from dust etc. by means of the cover.

8. Warranty and service

Warranty

Leica Microsystems Nussloch GmbH guarantees that the contractual product delivered has been subjected to a comprehensive quality control procedure based on the Leica in-house testing standards, and that the product is faultless and complies with all technical specifications and/or agreed characteristics warranted.

The scope of the warranty is based on the content of the concluded agreement. The warranty terms of your Leica sales organization or the organization from which you have purchased the contractual product shall apply exclusively.

Technical service information

If you require technical service or replacement parts, please contact your Leica sales representative or dealer who sold the product.

Please provide the following information:

- Model name and serial number of the instrument.
- Location of the instrument and name of the person to contact.
- Reason for the service call.
- Date of delivery.

Decommissioning and disposal

The instrument or parts of the instrument must be disposed of in compliance with the local laws.