

Art. Lebedev Studio



Optimus Maximus Replacement of keys



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Optimus Maximus keys can be removed and replaced.

This may be necessary in the following situations:

- a key lost its brightness, the image is gone or distorted, so it needs to be replaced;
- you wish to substitute an active key for a passive one, or to rearrange them;
- a key became dirty and should be cleaned.

Important! If you remove keys too often, their operation may be impaired. For this reason, we recommend you not to replace Optimus Maximus keys unless needed.

Types of keys and the mechanism

Optimus Maximus has 5 types of keys that differ in size:

- single-unit keys;
- single-unit keys with guides (bumps) for touch typing;
- one-and-a-half-unit keys;
- double-unit keys;
- the space bar.

A single-unit key is any letter or number key.

Each key has three elements:

- a transparent cap;
- a display module (or its mock-up in passive keys);
- a key bed that the cap clips to.

Any key can be made active if you replace a mock-up with a display. This requires disassembling and must be done by expert staff only.

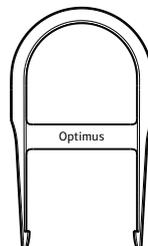
The above information is provided for you to know more about the mechanism, however you should not disassemble keys. In case you do, the producers shall not accept any claims, or replace damaged or affected keys.

Display modules are not available to buy as separate components. If you wish to order any of the five types of ready-assembled active keys, please contact us directly: sales@artlebedev.com.

Optimus key remover

Your keyboard comes with a special tool for removing keys. It is designed to remove keys and must not be used when installing them back.

The tool allows you to take out keys of any type, except for the space bar. Removing the space bar requires certain skills, so you should turn for professional assistance when necessary.



How to remove a key



Bring the remover tool to the key holding it at a straight angle. Place the tongs astride the cap and push down until you hear a click.



Pull the tool strictly vertically—holding it at a straight angle to your keyboard's surface, not to the table.

If you change the angle, you might bend the main board pin contacts. It is possible to carefully fix them afterwards, but no damages will be covered under warranty.

Having removed the key, you will see that the display moves easily inside the cap. The key bed has two pins to fit into the slots in the movable bottom of the key. The display module has two 10-contact connectors on the sides (passive keys feature mock-ups instead).

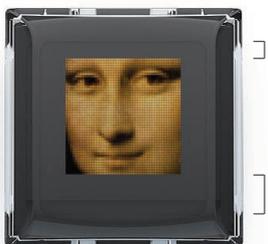
Remove the key from the tool and put it aside to avoid mixing.

How to install a single-unit key

Before installing a key, carefully examine the main board pin contacts.

If the contacts are significantly bent, set them straight carefully following the example of the near contacts. If you feel you cannot do this, please turn for professional assistance referring to this instruction.

Once the key is properly removed, you can install a new one. Pay attention to the position of the display module—its top and bottom parts differ in width of the surrounding metal frame. At the bottom the frame is wider.





Position the key so that the main board pin contacts point into the slots in the display module, and the wider part is at the bottom, arranged towards the space bar.



Once everything is correct, install the key by pressing the top of the cap down at the same angle.

If it seems that you have to press much harder to install the key, it might be that the key has been positioned wrong or the pin contacts are bent. Set these straight and make another attempt.

Make sure that the newly installed key is leveled with the rest—it must not sit higher, or tilt in any way. If it does, you must have failed to install it correctly. The display may work, but the key will not function properly. All the keys must be inserted firmly.

How to install one-and-a-half- and double-unit keys

Installation of these keys and the space bar is slightly different from that of single-unit keys. You have to perform additional steps.

One-and-a-half- and double-unit keys and the space bar feature a balancing lever that ensures key response, when the key is pressed on the side instead of the middle. It is a metal part fixed to the key bed and the keyboard.

When replacing such keys, you need to put the lever into the slot in the keyboard body while positioning the key itself against the pin contacts.

If the lever is not set in the slot, the key will not function properly, and will sway when pressed on the side. This may also cause noise.

We recommend not to replace these keys unless necessary.

Grease

To reduce typing noise, one-and-a-half- and double-unit keys, as well as the space bar, use special silicone grease. For this reason the lever slots and contacts must not be wiped. Silicone grease can be purchased in specialized stores selling electronic equipment. It is best to turn for professional assistance, if your keyboard needs grease replacement.

To increase the efficiency and lifetime of the metal key parts, the ends of the display module metal frames (or plastic mock-ups in passive keys) are covered with thin-film lubricant.

Important! Should you disassemble a key and take out the display module, do not touch the top of the metal frame or the display itself, for you can smear the grease. It is highly difficult to clean off.

Detailed information on Optimus Maximus and related software available at
optimus.artlebedev.com

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Russian and international patents pending
Made in Taiwan

