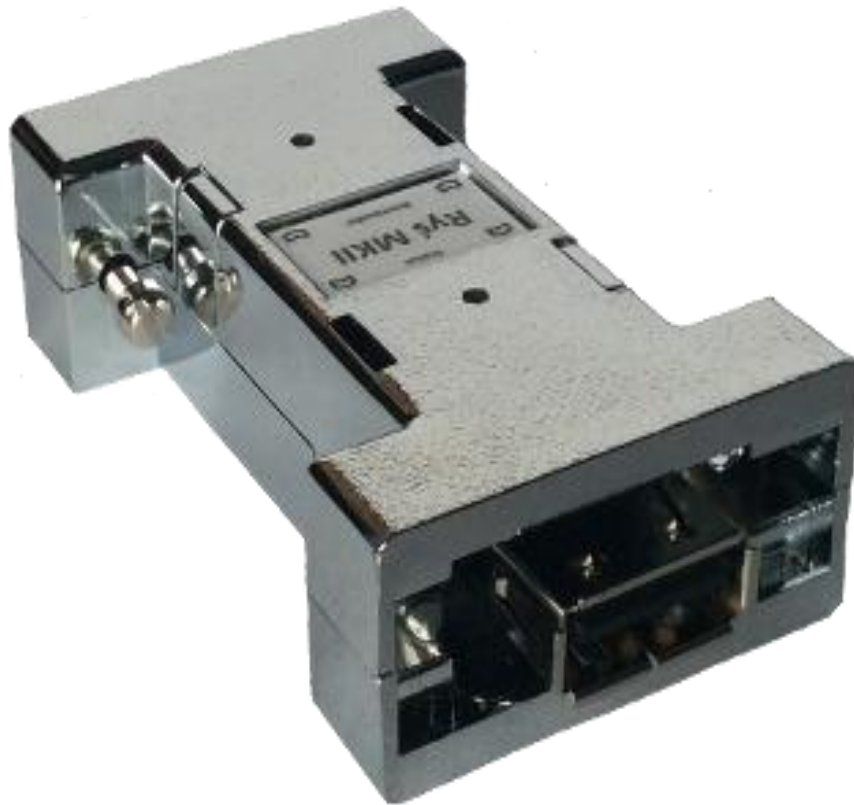


# Ryś MKII adapter

*Retro*  
*7-bit*



## USER GUIDE

Version 1.3      Firmware: v.20160103

## Installation

Ryś adapter has been designed for connecting to mouse/joy port of the Amiga computer. In case of some Amiga models usage of additional adapters allowing Ryś's connection may be required.

The installation procedure should always be performed with the Amiga being powered off. One should connect Ryś to the chosen port (mouse or joystick) and tightening up the holding screws. After turning the Amiga back on, Ryś is ready to use.

## Operation modes

Connecting of any USB device and its activation, Ryś signals with lighting on **Status** LED.

Adapter automatically detects a type of the connected device, which may fall into one of the three categories:

- mouse
- joystick/pad
- keyboard

When it detects USB mouse, Ryś automatically starts original Amiga mouse emulation. If the adapter detects a joystick or a USB pad, then it switches into Pad mode. When one reconnects a joystick (after using a pad), the user should manually activate joystick mode. It can be done by simultaneously pressing buttons **9** and **10** or the **Bootloader** and **4** buttons on the joystick being connected. If the device being reconnected is a pad, then one should simultaneously press **SELECT** and **START** buttons.

Reconnecting a USB keyboard activates joystick emulation for keyboards. Key-assignment schemes can be toggled between with F1-F2 functions keys.

All the settings are automatically saved in adapter's EEPROM memory, which enables their automatic restoration when Ryś is being used again.

## Operation mode change signalling

Device signals its operation mode change with following Status-LED pulsation sequences:

When a joystick or a pad is connected.

- 1 blink - **Joystick** mode
- 2 blinks - **Pad** mode
- 3 blinks - **Pad** - mouse emulation mode
- 4 blinks – **CD32 pad mode** – original CD32 pad emulation mode

When a mouse is connected.

- 4 blinks - tracking speed change (3 mouse emulation modes)

## Function mapping in Mouse operation mode

### Mouse

- wheel button - emulation mode selection
- **Bootloader** button + left/right mouse button – mouse speed adjustment for the fastest emulation mode

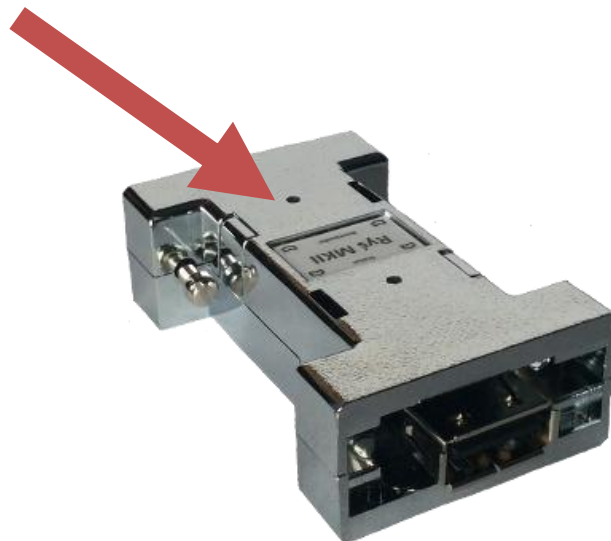
## Function mapping in Joystick/Pad/Keyboard operation mode

Joystick	Pad	Keyboard
<ul style="list-style-type: none"><li>• 9 + 10 - operation mode switch</li><li>• Bootloader + 4 - operation mode switch</li></ul>	<ul style="list-style-type: none"><li>• SELECT + START - operation mode switch</li></ul>	<ul style="list-style-type: none"><li>• F1-F2 - operation mode switch</li></ul>
<ul style="list-style-type: none"><li>• 1 - fire1</li><li>• 2 - fire2</li><li>• 3 - fire3</li><li>• 6 - autofire1</li><li>• 5 - autofire2</li></ul>	<ul style="list-style-type: none"><li>• X - fire1</li><li>• O - fire2</li><li>• [] - UP</li><li>• R2 - autofire1</li><li>• L2 - autofire2</li></ul>	<p>F1 scheme</p> <ul style="list-style-type: none"><li>• A - left</li><li>• W - up</li><li>• S - down</li><li>• D - right</li><li>• O - fire1</li><li>• P - fire2</li></ul> <p>F2 scheme</p> <ul style="list-style-type: none"><li>• left arrow key</li><li>• right arrow key</li><li>• down arrow key</li><li>• up arrow key</li><li>• W - fire1</li><li>• Q - fire2</li></ul>

## Updating adapter's firmware (Bootloader)

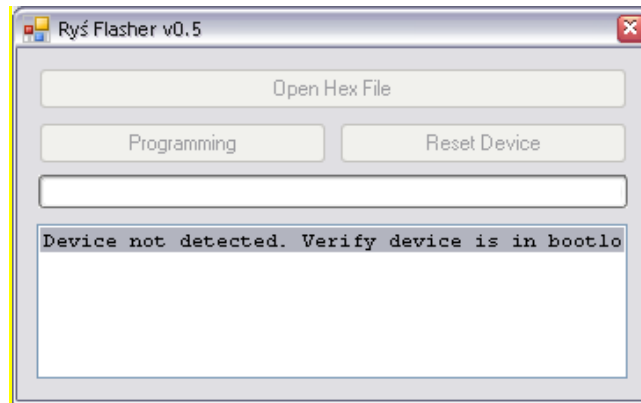
In order to update adapter's firmware, one put the device into Bootloader mode. It should be performed by pressing (with something pointed) the button located on adapter's case and labelled **Bootloader**.

Bootloader



When pressing and holding the **Bootloader** button, one should connect the device via USB A-A cable to the PC running Windows. After being recognized by Windows OS, adapter switches into **Bootloader** mode which is confirmed with continuous pulsation of the **Status** LED.

The next required step is to launch on the connected Windows PC **RyśFlasher** application that will update firmware of the adapter.



When application detects connected Ryś adapter it will enable **Open Hex File** button. Firmware update procedure looks as follows:

- One should press **Open Hex File** button and choose a file containing updated firmware image (which results in enabling **Programming** and **Reset Device** buttons).
- One should press **Programming** button and wait for the flashing process to complete.
- After completion of the flashing process, one should press **Reset Device** button, which switches Ryś back into normal operation mode allowing its disconnecting from the PC.

Having followed the above procedure one can connect the adapter back to the Amiga.

All files required for the updating procedure can be downloaded from <http://retro.7-bit.pl> website.

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