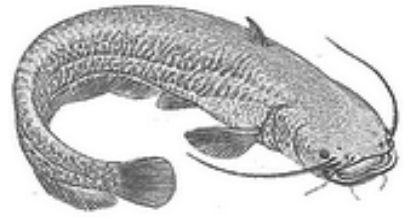


# Sum USB adapter

*Retro*  
*7-bit*



**SumA1200, SumA600, SumA234/CD32, SumCDTV**

## USER GUIDE

Version 1.2

Firmware: v.20151017

# Table of contents

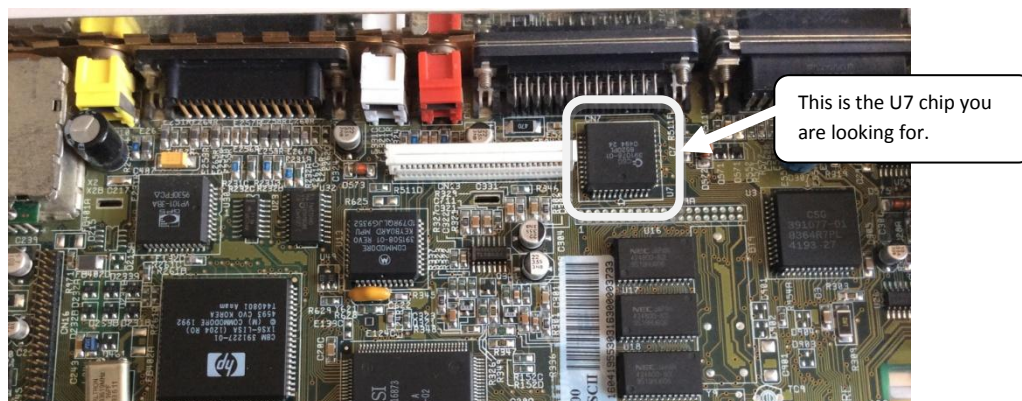
Installation – Amiga 1200.....	3
Installation – Amiga 600.....	4
Installation – Amiga 2000/3000/4000/CD32 .....	6
Installation – Amiga CDTV .....	7
Mapping keys .....	8
Configuration mode .....	9
Updating adapter’s firmware .....	10

## Installation – Amiga 1200

**The process of connecting the adapter should ALWAYS be performed with your Amiga being TURNED OFF.**

Sum USB A1200 adapter has been designed for installation inside Amiga A1200 computer.

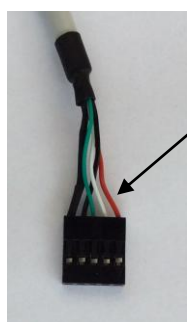
Therefore please remove your Amiga A1200 case and find the U7 chip using the following picture as a guide.



Next you should place Sum adapter's socket on the U7 chip and push it gently in order to make it appropriately attached to the chip. Below you can see how correctly installed adapter looks like.



The last step that you will need to make is connecting a USB cable to the port located on the adapter. The exact description of how to do this is illustrated below.



Pin no. 1 is marked in red.



Pin no. 1, which is marked in red, should go here.

**WARNING!!!**

**One should pay special attention to connecting USB cable to your Sum adapter in a correct way. Incorrect installation may result in serious damage to the adapter, your Amiga computer and/or the connected USB device**

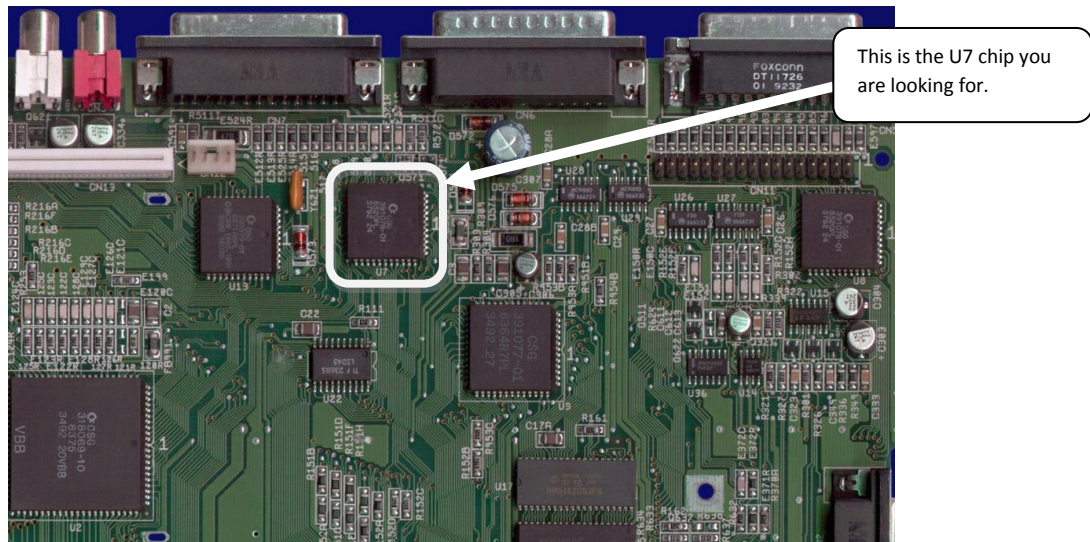
Correctly connected Sum adapter is ready to use.

## Installation – Amiga 600

The process of connecting the adapter should ALWAYS be performed with your Amiga being TURNED OFF.

Sum A600 adapter has been designed for installation inside Amiga A600 computer.

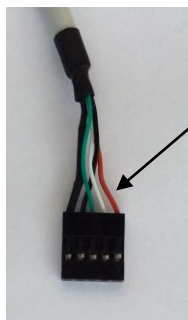
Therefore please remove your Amiga A600 case and find the U7 chip using the following picture as a guide.



Next you should place Sum adapter's socket on the U7 chip and push it gently in order to make it appropriately attached to the chip. Below you can see how correctly installed adapter looks like.



The last step that you will need to make is connecting a USB cable to the port located on the adapter. The exact description of how to do this is illustrated below.



Pin no. 1 is marked in red.



Pin no. 1, which is marked in red, should go here.

#### **WARNING!!!**

**One should pay special attention to connecting USB cable to your Sum adapter in a correct way. Incorrect installation may result in serious damage to the adapter, your Amiga computer and/or the connected USB device**

Correctly connected Sum adapter is ready to use.

## Installation – Amiga 2000/3000/4000/CD32

**The process of connecting the adapter should ALWAYS be performed with your Amiga being TURNED OFF.**

Sum A1234/CD32 adapter should be connected to the keyboard port of Amiga A4000 / CD32 computers.



In the case of Amiga A2000/A3000 models one should also use additional cable that comes with Sum A1234/CD.



Correctly connected Sum adapter is ready to use.



## Installation – Amiga CDTV

**The process of connecting the adapter should ALWAYS be performed with your Amiga being TURNED OFF.**

Sum CDTV adapter should be connected to the keyboard port of Amiga CDTV computers.



Correctly connected Sum adapter is ready to use.

# Mapping keys

Amiga keys	USB keyboard
Amiga Reset	CTRL + L-Win + R-Win CTRL + L-Alt + R-Alt CTRL + L-Alt + Del
Help	F12
L-Amiga	L-Win
R-Amiga	R-Win



## Configuration mode

In order to activate configuration mode one should first run any text editor. Then **R-Shift + Pause** key combination should be pressed (when using a Mac keyboard equivalent **R-Shift + F19** applies). If configuration mode is successfully enabled, the appropriate text message appears.

This is the list of available key assignments:

- F1 – reset type - **software** (A2000,A3000,A4000,CD32,CDTV) or **hardware** (A600,A1200),
- F2 – **R-Amiga** to **R-Alt** remapping,
- F10 – displaying key codes (on/off),
- F12 – displaying the configuration.

Disabling configuration mode can be achieved by additional pressing of **R-Shift + Pause** key combination (**R-Shift + F19** for Mac keyboards). Appropriate text message confirms it.

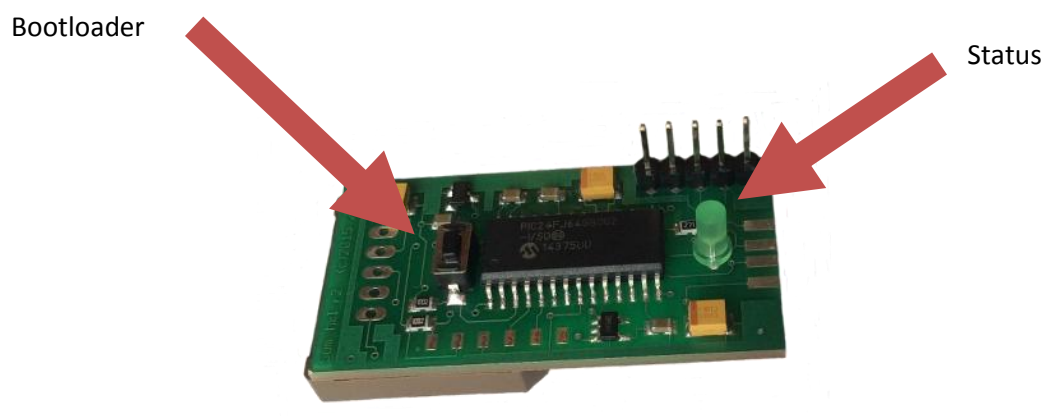
**WARNING!!!**

If resetting your Amiga does not seem to have any effect – please check the reset type setting (**F1** key).

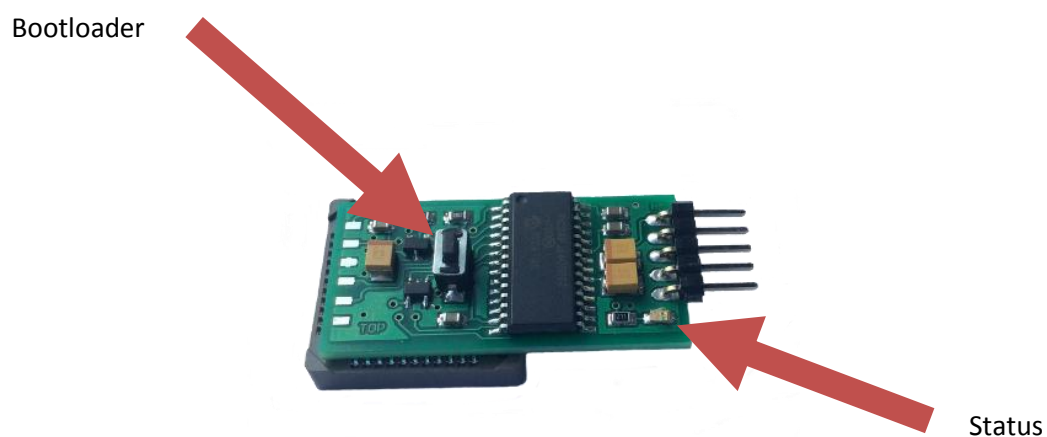
## Updating adapter's firmware

To update your adapter's firmware software, you should first enable the **Bootloader** mode. In order to do this, please press the button located on top of the device or on its case (with **Bootloader** label).

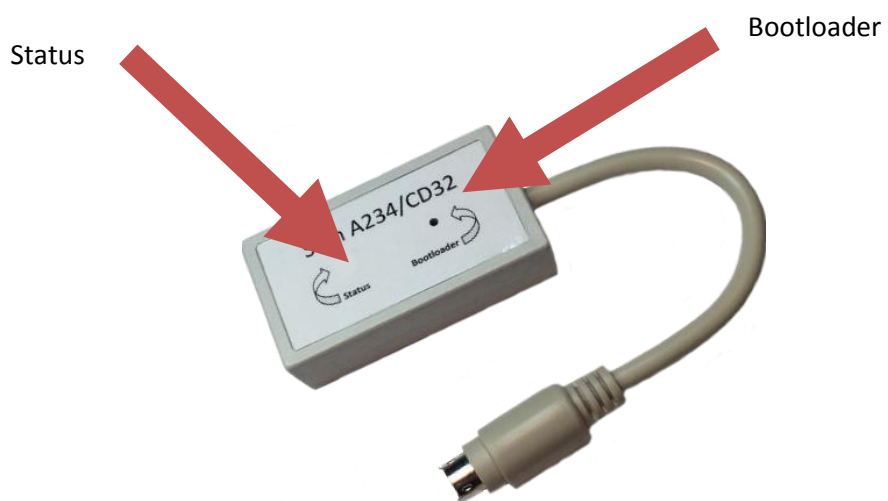
Below you can find the description of where the reset button and status light (LED) are located for a given Sum model.



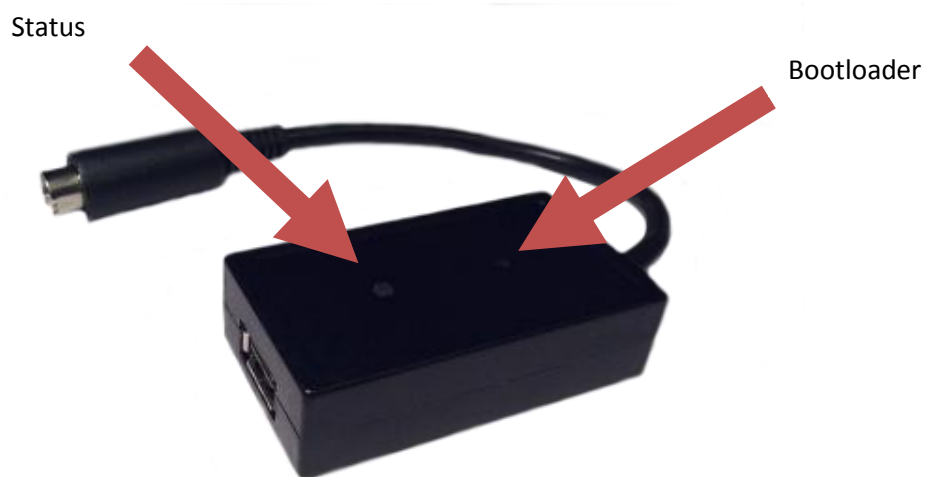
Bootloader button and status LED location for SumA1200



Bootloader button and status LED location for SumA600



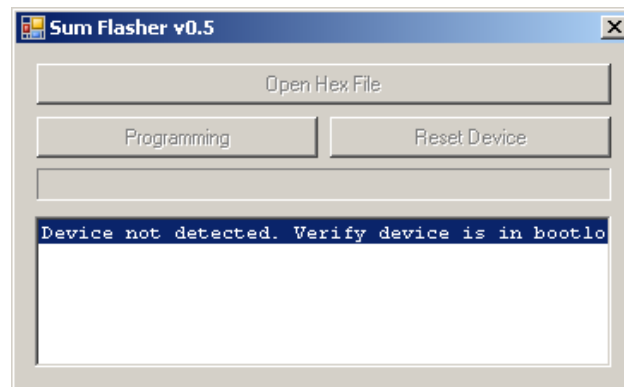
Bootloader button and status LED location for SumA234/CD32



Bootloader button and status LED location for SumCDTV

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 **SumFlasher** application that will update firmware of the adapter.



When application detects connected Sum 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 Sum 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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