Microphone Camera Controller

The SC100 is a single-board computer with a Linux operating system and customised software that features an algorithm for acoustic-based speaker tracking in video conferences. The device is housed in a robust aluminium casing and serves as a control unit, especially for professional applications.

Note: The SC100 has two application slots, with the second slot reserved only for smaller applications. It is recommended to run large applications, such as MMC, in the first application slot.

In the Box
1x   SC100 Device

Additional Items
4x   Rubber Feet (pre mounted)
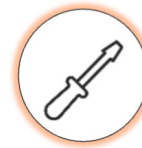1x   16 GB USB stick 2-in-1 micro / A
1x   Lanyard

Safety Instructions
The SC100 is intended for use exclusively in enclosed, dry indoor environments. Use in safety-critical, medical, or industrial control applications is explicitly excluded.

Use a suitable power supply (5 V / 2 A) or a PoE switch compliant with IEEE 802.3af (Class 0).

To comply with European regulations (CE), it is recommended to use a high-quality, shielded solid-core twisted pair cable (S/FTP) of category CAT5e or higher.

Ensure adequate ventilation during operation. In a closed rack, the operating temperature may exceed the ambient temperature.

Install the Device

The control system can be mounted onto a wall or placed on a flat surface.

If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient temperature. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature specified by the manufacturer.
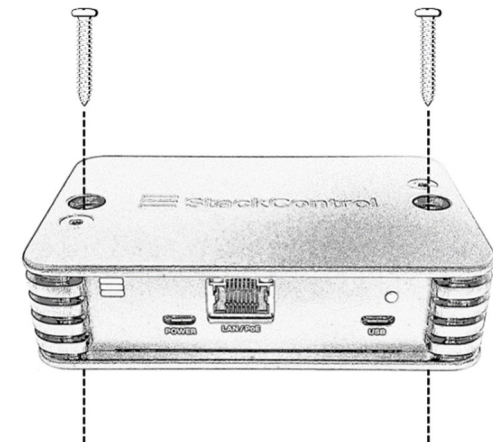
Mount onto a Wall

Mounting screws are not supplied. Different wall materials require different types of wall hardware. Always use hardware (screws, wall plugs, etc) that is suitable for your wall.

The inner diameter of the fixing holes is 5 mm.

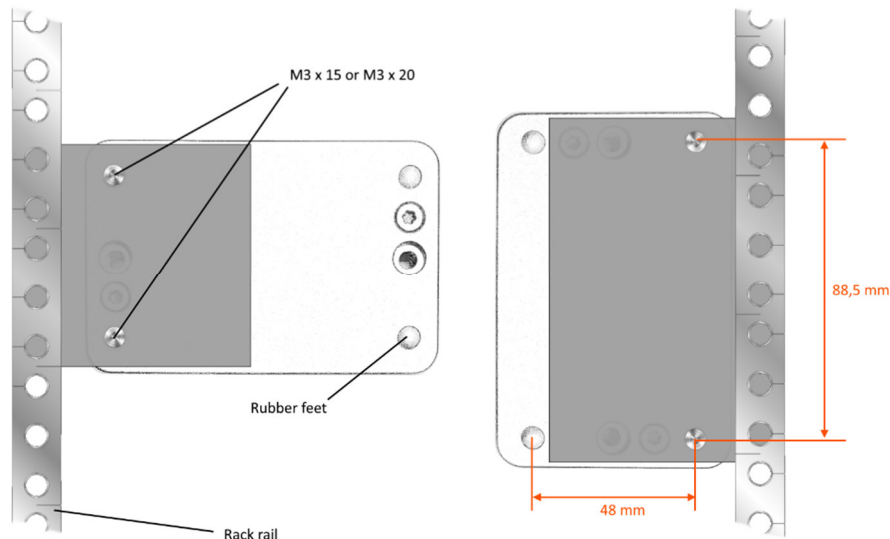Flat head screws are recommended. Do not overtighten.

You can remove the rubber feet or not before attaching the unit onto the wall.

Microphone Camera Controller
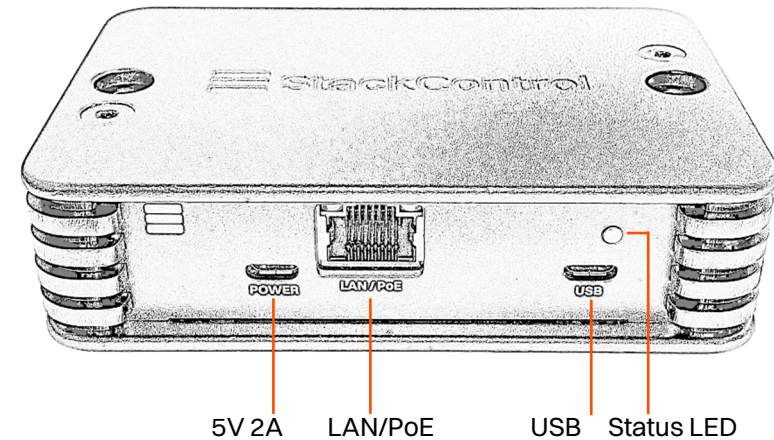
Mounting onto a Rack Rail

To mount the device onto a front or rear rack rail:

1. Remove the rubber feet to expose the M3 threaded holes underneath.
2. Secure the device to a mounting bracket (not included).
3. Secure bracket to the rack rail using two rack mount screws (not included).

Place on a Flat Surface

Attach the supplied feet to the corresponding holes in the corners on the underside of the SC100 before placing it on a flat surface or stacking it with other appliances.

5V 2A   LAN/PoE   USB   Status LED
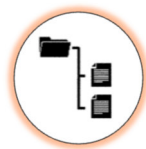
Note: SC100 can be operated without USB stick.

Prepare the Device

1. Insert USB stick: Insert the provided USB stick into the "USB" port of the StackControl SC100. Ensure that the micro USB connector is facing forward and that the USB stick is inserted correctly into the port. Avoid using force.

2. Start Controller: Power on the SC100 controller via PoE (Power over Ethernet, IEEE 802.3af, Class 0) or by connecting USB power source (5V, 2A) to the „Power" port. Ensure that the micro USB connector is inserted correctly. Avoid using force.

3. Wait for Boot: Please wait a few seconds until the SC100 has completed the boot process. When the status LED lights up constantly, the changes to the USB stick are complete and the stick can be safely removed. If you have missed this phase, you can also remove the stick later. See chapter "Observe the LED Indicator"

4. Check USB stick: The SC100 has stored setup and configuration information on the USB stick. You can access this information from another PC. The USB stick supports micro-USB and USB-A connections (2-in-1).

The included USB stick is intended solely for product-specific setup and configuration of the SC100. It is not designed for general data exchange and is not required during regular operation.
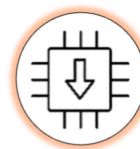
File and Folder Structure

The root directory of the USB stick contains a startup file, a log file and an info file as well as two folders. With the exception of the startup file, all files and folders contain the host name of the device and are therefore unique.

StackControl_SC100_Startup.txt can be edited and is read/written at startup according to the procedure described in the "Preparing the Device" chapter. See and follow the more detailed instructions for using the StackControl_SC100_Startup.txt file at the beginning of the same file.

The documents folder contains a backup version of the Startup file in case you need it. Additional documents will be added in future releases.

The „Connections" folder contains a folder for each system, which contains files for quick and easy access to the corresponding system.

The _dns file uses the host name for the connection, the _ipv4 file uses the ipv4 IP address and the _ipv6 file uses an ipv6 IP address for the connection if your network connection supports this.

Upgrade the Firmware

Before using the device, upgrade the firmware. The latest firmware can be downloaded from the SC100 product page on the StackControl website (https://stackcontrol.io/support)

Use only officially released firmware updates. Independently installed software or unauthorized system modifications will result in the loss of product safety and compliance.

Configure the Device

The DHCP client is activated by default. In the event that a DHCP server is not available or does not exist in the network, the device can assign itself an IP address (Internet Protocol). This function is known as Automatic Private IP Addressing (APIPA).

Configure the device via the web interface. To access the web interface, connect to the same network, open a web browser and navigate to the IP address of the device.

If you are using firmware version earlier than v3.1.7, make sure to enter the correct port number and path depending on the application slot. For quick and easy connection to the device, refer to the section "File and Folder Structure."

The port number for the first application slot will be 1881. The path will be `/stackcontrol` whereby the ip-address can be obtained from the StackControl_SC100-Info.txt file. e.g.:
http://169.254.23.153:1881/stackcontrol

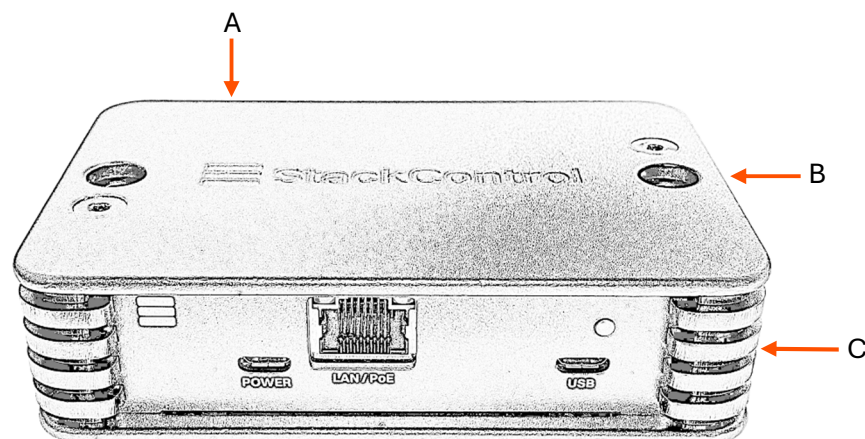Starting with firmware version 3.1.7, the path is `/dashboard`

As ipv6 addresses can contain colons, put brackets around the ipv6 address. e.g.
http://[fe80:0000:0000:0000:3401:fae5:ebac:9904]:1881/stackcontrol

Secure the Device(s)

The device has two cut-outs (see A resp. B) for attaching a Kensington Nano Lock.

Another recess for attaching the lanyard is also located on the right-hand side of the device (see C). This allows the micro USB stick to be attached directly to the device and will be available when needed instead of being stored in someone else's drawer.

A

B

C

The SC100 is equipped with 2x 5mm pass-through holes in the casing, allowing the use of cable seals to secure against unauthorized opening. By threading cable seals through the holes and closing them, the casing can be secured, preventing access to the internal components of the device.

It is not recommended to use the holes for securing and mounting at the same time.

Observe the LED Indicator

The LED indicator can only show colour red. However, the number and frequency of the flashing signals provides information about the current system status

LED behaviour	Phase	Remarks
double flashing	booting	
flashes every second	pre loading	read/write USB stick
Continuous lighting	initializing	
flashes every 5 seconds for 200ms	running	short heartbeat
flashes every 5 seconds for 700ms	standby	long heartbeat

The heartbeat indicators apply individually to each slot, with the LED displaying the status of both. A short blink indicates an active slot, while a long blink signals an inactive one. The sequence of blinks determines the slot configuration:

A short blink followed by a long one means the first slot is on and the second is off. A long blink followed by a short one indicates the opposite. If both slots share the same state, the LED flashes either twice briefly or twice with longer intervals.

Feature Request

Do you have an idea or are you missing a feature? Send us a feature request!

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Additional Information

The Waste Electrical & Electronic Equipment (WEEE) directive marking on a product indicates that it should not be disposed of with general waste. Instead, you are encouraged to reuse or recycle the product in accordance with Directive 2012/19/EU of the European Union. Proper disposal of this product will help prevent potential negative effects on the environment and human health, which could otherwise be caused by inappropriate waste handling. Penalties may be applicable for incorrect disposal of this waste, in accordance with your national legislation. For information about recycling this product, please contact your household waste disposal service, your original distributor, or StackControl.

WEEE-Reg.-Nr. Deutschland: **DE 83952652**

The SC100 complies with harmonized standards such as EN 55032, EN 55035 and EN IEC 63000. A full list is available in the EU Declaration of Conformity.

CE

StackControl