pactl Sound server control

Card hardware, profile → **has** → **Sink** output, port → **fed by** → **Sink input** app playback stream → **monitor** → **Source** input or sink monitor

CONCEPTS

> pactl talks to a PulseAudio server. On PipeWire the pipewire-pulse service answers the same protocol, so these commands work unchanged.

> Names or numeric indexes both work for devices; indexes change after restarts, names do not. @DEFAULT_SINK@ and @DEFAULT_SOURCE@ avoid looking names up.

> Add -f json (or --format=json) for machine-readable output, or use list short for tab-separated columns.

INSPECT

pactl info
Server, version, default sink/source

pactl list short sinks
Output devices, one per line

pactl list short sources
Input devices and monitors

pactl list short cards
Sound cards

INSPECT (cont.)

pactl list short sink-inputs
Playback streams

pactl list short source-outputs
Recording streams

pactl list sinks
Full detail: ports, volume, state

pactl list short modules
Loaded modules

pactl list short clients
Connected clients

pactl -f json list sinks
Machine-readable output

DEFAULT DEVICE

pactl get-default-sink
Print default output

pactl set-default-sink *<sink>*
Change default output

pactl get-default-source
Print default input

pactl set-default-source *<source>*
Change default input

pactl set-sink-port *<sink> <port>*
Switch speakers / headphones

VOLUME AND MUTE

pactl get-sink-volume *<sink>*
Show volume

pactl set-sink-volume *<sink>* **50%**
Absolute volume

pactl set-sink-volume @DEFAULT_SINK@ +5%
Raise by 5 points

pactl set-sink-volume @DEFAULT_SINK@ -5%
Lower by 5 points

pactl set-sink-volume *<sink>* **0dB**
Volume in decibels

pactl set-sink-mute *<sink>* **toggle**
Toggle mute

pactl set-sink-mute *<sink>* **1**
Mute (0 = unmute)

pactl get-sink-mute *<sink>*
Show mute state

pactl set-source-volume *<source>* **80%**
Mic level

pactl set-source-mute *<source>* **toggle**
Mute the mic

VOLUME AND MUTE (cont.)

pactl get-source-volume *<source>*
Show mic level

> Values above 100% amplify and may distort; relative +/- steps apply to the current volume.

STREAMS

pactl move-sink-input *<id> <sink>*
Send a stream to another output

pactl set-sink-input-volume *<id>* **30%**
Per-app volume

pactl set-sink-input-mute *<id>* **toggle**
Mute one app

pactl move-source-output *<id> <source>*
Record from another input

CARDS AND DEVICES

pactl set-card-profile *<card> <profile>*
Change profile (e.g. HDMI, A2DP)

MODULES

pactl load-module *<name>* **[args]**
Load; prints module index

pactl unload-module *<id or name>*
Unload by index or name

pactl load-module module-null-sink sink_name=*<name>*
Virtual output

pactl load-module module-loopback source=*<src>* **sink=***<sink>*
Route input to output

EVENTS AND SAMPLES

pactl subscribe
Stream server events, runs until stopped

OPTIONS

pactl -f json *<command>*
JSON output (text is default)

RECIPES

Volume keys script

```
pactl set-sink-volume
@DEFAULT_SINK@ +5%
pactl set-sink-mute
@DEFAULT_SINK@ toggle
pactl get-sink-volume
@DEFAULT_SINK@
```