



API REFERENCE

iSound PA20

Power Amplifier — RS-232 ASCII API (Mixed Terminators)

2 INPUT SWITCH	RS-232 9600-8-N-1	"." / "%" MIXED
MIC + LINE MIXER-AMP	PER-COMMAND TERMINATOR	BASS · TREBLE · NOISE GATE

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OVERVIEW

The iSound PA20 is a power amplifier with a 2-input audio switch (MIC/Line), independent MIC and Line-out muting, noise gate, and bass/treble tone control. This API reference documents its RS-232 command set.

Commands use a compact numeric-prefix ASCII syntax with a MIXED terminator scheme: switching and mute commands terminate with a dot "." while status-query and volume/tone commands terminate with a percent sign "%". This is a genuine protocol quirk of the PA20, not a documentation error — each command below lists its actual terminator as captured, and integrators must not normalize all commands to a single terminator.

KEY FEATURES

- **2-Input Audio Switching** — commands 1A1. / 2A1. select MIC (input 1) or Line (input 2) as the active source
- **Independent Mute Control** — separate mute/unmute for MIC-and-Line-out combined (0A0./0A1.), MIC only (1A0.), and Line-out only (2A0.)
- **Noise Gate** — 3A0. / 4A0. toggle the noise gate on/off
- **MIC & Line Volume Control** — increment/decrement commands (601%-604%) plus direct preset-level commands (5[xx]% for MIC 00-60, 7[xx]% for Line 00-60 — 61 discrete steps each)
- **Bass & Treble Tone Control** — increment/decrement (605%-608%) plus direct preset-level commands (8[xx]% bass, 9[xx]% treble, 00-08 — 9 discrete steps each)
- **Working Status Query** — 600% returns the current operating status snapshot
- **Factory Default / Initialization** — 609% restores default settings

SPECIFICATIONS

PROTOCOL	
Control Port	RS-232
Serial Parameters	9600 bps, 8 data bits, no parity, 1 stop bit (9600-8-N-1)
Terminator (mixed)	"." for switching/mute commands; "%" for status-query and volume/tone commands — see per-command Term column below
Command Syntax	numeric-prefix ASCII, e.g. "1A1." (switch to input 1) or "601%" (MIC volume up)
COMMAND COVERAGE	
Audio	22 commands — input switching, mute (combined/MIC/Line), noise gate, status query, MIC/Line volume (inc-dec + preset), bass/treble (inc-dec + preset), factory default

COMPLIANCE	
Documentation Source	infobit_api.db device_id=86 — iSound PA20 API command reference
Protocol Note	Mixed terminator scheme (". " and "%") is a genuine device quirk, verified per-command from source documentation — not normalized in this reference

COMMAND REFERENCE

The iSound PA20 command set is accessed over RS-232 at 9600-8-N-1. All 22 commands below use a numeric-prefix ASCII syntax.

Terminator note (important): this device uses a MIXED terminator scheme — switching and mute commands (1A1., 0A0., etc.) terminate with a dot ". ", while status-query and volume/tone commands (600%, 601%, 5[xx]%, etc.) terminate with a percent sign "%". Verify the Term column for each command; do not assume a single terminator for the whole command set.

Command Table (22 commands)

Command	Syntax	Description	Example	Term
AUDIO				
Switch audio to input 1	1A1.	Switching the audio to input 1.	1A1.	.
Switch audio to input 2	2A1.	Switching the audio to input 2.	2A1.	.
Mute audio (MIC and Line out)	0A0.	Mute Audio of MIC and Line out.	0A0.	.
Mute MIC audio	1A0.	Mute audio of MIC.	1A0.	.
Mute Line out audio	2A0.	Mute audio of line out.	2A0.	.
Unmute audio	0A1.	Unmute Audio.	0A1.	.
Noise gate on	3A0.	Switch on Noise Gate.	3A0.	.
Noise gate off	4A0.	Switch off Noise Gate.	4A0.	.
Check working status	600%	Checking the working status.	600%	%
MIC volume up	601%	MIC volume up.	601%	%

Command	Syntax	Description	Example	Term
MIC volume down	602%	MIC volume down.	602%	%
Line volume up	603%	Line volume up.	603%	%
Line volume down	604%	Line volume down.	604%	%
Bass level up	605%	Bass level up.	605%	%
Bass level down	606%	Bass level down.	606%	%
Treble level up	607%	Treble level up.	607%	%
Treble level down	608%	Treble level down.	608%	%
Initialization / factory default	609%	Initialization, back to the default setting.	609%	%
Preset MIC volume	5[x][x]%	Preset MIC volume, [xx] arranges from [00] to [60]. 61 degrees in total.	5[x][x]%	%
Preset Line volume	7[x][x]%	Preset line volume, [xx] arranges from [00] to [60]. 61 degrees in total.	7[x][x]%	%
Preset bass level	8[x][x]%	Preset the bass level, [xx] arranges from [00] to [08]. 9 degrees in total.	8[x][x]%	%
Preset treble level	9[x][x]%	Preset the treble level, [xx] arranges from [00] to [08]. 9 degrees in total.	9[x][x]%	%

APPLICATION EXAMPLE

A typical iSound PA20 deployment amplifies a MIC and/or Line source for a classroom or small venue, with a control processor switching input source, adjusting MIC/Line volume, and tuning bass/treble via RS-232.

- A control processor connects over RS-232 at 9600-8-N-1 and issues "1A1." to select the MIC input.
- "601%" / "602%" step MIC volume up/down, or "5[xx]%" sets an exact MIC volume level (00-60) for a recalled scene.
- "3A0." enables the noise gate to suppress background hiss on an open MIC line.
- "600%" polls working status so the control system can confirm the amplifier is powered and responding before applying further commands.
- "609%" is used during a technician reset to return the amplifier to factory default levels.

Connection Summary

Port	Connected to
RS-232	Central control processor — 9600-8-N-1, mixed "." / "%" terminators
MIC IN	Microphone source (input 1)
LINE IN	Line-level source (input 2)
Speaker output	Amplified output to room speakers

ORDERING INFORMATION

Model	Description
iSound PA20	Power Amplifier — 2-input MIC/Line switch, RS-232 API with mixed "." / "%" terminators

Specifications are subject to change without notice. For the latest product information, visit www.infobitav.com or contact your Infobit AV representative.