



US 20240178799A1

(19) **United States**(12) **Patent Application Publication**  
**OCHI et al.**(10) **Pub. No.: US 2024/0178799 A1**(43) **Pub. Date: May 30, 2024**(54) **AMPLIFIER**(71) Applicant: **Roland Corporation**, Shizuoka (JP)(72) Inventors: **Toshiyuki OCHI**, Hamamatsu (JP);  
**Mitsuo SHIDA**, Hamamatsu (JP)(73) Assignee: **Roland Corporation**, Shizuoka (JP)(21) Appl. No.: **18/307,800**(22) Filed: **Apr. 27, 2023**(30) **Foreign Application Priority Data**

Nov. 24, 2022 (JP) ..... 2022-187235

**Publication Classification**(51) **Int. Cl.****H03F 1/32** (2006.01)**H03F 3/181** (2006.01)(52) **U.S. Cl.**CPC ..... **H03F 1/327** (2013.01); **H03F 3/181**  
(2013.01); **H03F 2200/03** (2013.01)

(57)

**ABSTRACT**

An amplifier includes an amplification section for amplifying a musical tone signal input from an electric musical instrument. A plurality of speakers are connected to the amplifier. The amplifier includes a selection section selecting a speaker for outputting the musical tone signal amplified by the amplification section, among the plurality of speakers, a storage section storing a characteristic adjustment value which is a value for adjusting an output impedance characteristic or an input impedance characteristic of the amplifier according to a characteristic of the speaker for each of the plurality of speakers, an acquisition section acquiring the characteristic adjustment value corresponding to the speaker selected by the selection section from the characteristic adjustment values stored in the storage section; and a characteristic adjustment section adjusting the output impedance characteristic or the input impedance characteristic based on the characteristic adjustment value acquired by the acquisition section.

