## Claims

1. An amplifier unit (1) for operating a piezoelectric sound transducer (2) and/or a dynamic sound transducer (3), which comprises at least one audio amplifier (4, 5),
characterized in that
the amplifier unit (1) includes a detection unit (6), with the aid of which it can be detected, in particular in an automated manner, whether a sound transducer (2, 3) coupled to the amplifier unit (1) is a piezoelectric sound transducer (2) or a dynamic sound transducer (3),
wherein the amplifier unit (1) is configured in such a way that, after a sound transducer (2, 3) has been connected, the amplifier unit (1) sends, in particular in an automated manner, a test signal to the connected sound transducer (2, 3) and wherein the detection unit (6) is configured in such a way that it receives and/or analyzes a response signal of the sound transducer (2, 3) resulting from the test signal.

2. The amplifier unit as claimed in the preceding claim, characterized in that the amplifier unit (1) comprises at least a first audio amplifier (4) for operating a piezoelectric sound transducer (2) and a second audio amplifier (5) for operating a dynamic sound transducer (3).

3. The amplifier unit according to any one of the preceding claims, characterized in that the amplifier unit (1) includes at least one interface, in particular, cabled interface (9, 10, 20), via which at least one sound transducer (2, 3) is connected or can be connected to the amplifier unit (1) and/or to the detection unit (6).

4. The amplifier unit according to any one of the preceding claims, characterized in that the at least one interface (9, 10, 20) comprises at least one test line (11) for connecting the detection unit (6) to the at least one sound transducer (2, 3) and/or at least one audio line (12a, 12b) for connecting at least one audio amplifier (4, 5) to the at least one sound transducer (2, 3).

5. The amplifier unit according to any one of the preceding claims, characterized in that the at least one interface (9, 10, 20), in particular the test line (11) and/or the audio line (12a, 12b), is designed to be bidirectional, so that signals can be sent from the amplifier unit (1) to the at least one sound transducer (2, 3) and can be received by the at least one sound transducer (2, 3) and vice versa.

6. The amplifier unit according to any one of the preceding claims, characterized in that the amplifier unit (1) comprises a switching unit (8), with the aid of which at least one of the audio amplifiers (4, 5) can be selected, so that an audio signal can be routed thereto.

7. The amplifier unit according to any one of the preceding claims, characterized in that the amplifier unit (1) comprises a control unit (13) for controlling the switching unit (8) which is preferably situated between the switching unit (8) and the detection unit (6) and/or is electrically connected to the switching unit (8) and the detection unit (6).

8. The amplifier unit according to claim 7, characterized in that the detection unit (6) and/or the control unit (13) are/is configured in such a way that, after a sound transducer (2, 3) has been connected, the detection unit (6) and/or the control unit (13) send/sends, in particular in an automated

manner, the test signal to the at least one connected sound transducer (2, 3).

9. The amplifier unit according to any one of the preceding claims, characterized in that the detection unit (6) can preferably distinguish between a capacitive response signal and an inductive response signal.

10. The amplifier unit according to any one of the preceding claims, characterized in that the detection unit (6) is configured in such a way that it identifies a piezoelectric sound transducer (2) in the case of a capacitive response signal and it identifies a dynamic sound transducer (3) in the case of an inductive response signal, and it transmits a corresponding result signal to the control unit (13).

11. The amplifier unit according to any one of the preceding claims, characterized in that the control unit (13) is configured in such a way that it actuates the switching unit (8) depending on the result signal, so that the audio signal can be routed to the first audio amplifier (4) and/or to the second audio amplifier (5).

12. The amplifier unit according to any one of the preceding claims, characterized in that the amplifier unit (1) includes a power supply unit (18), with the aid of which a voltage can be made available to the first audio amplifier (4).

13. The amplifier unit according to any one of the preceding claims, characterized in that the first audio amplifier (4) includes an energy recovery unit, with the aid of which electrical energy can be recovered from the piezoelectric sound transducer (2).

14. A sound-generation unit comprising at least one sound transducer (2, 3) and an amplifier unit (1), which amplifies an audio signal and feeds it to the sound transducer (2, 3), characterized in that the amplifier unit (1) is designed according to any one of the preceding claims.

15. A method for operating an amplifier unit (1), a sound transducer (2, 3), specifically a piezoelectric sound transducer (2) and/or a dynamic sound transducer (3) according to any one of the preceding claims, which comprises at least one audio amplifier (4, 5),
characterized in that
with the aid of a detection unit (6) of the amplifier unit (1), it is detected, in particular in an automated manner, whether a sound transducer (2, 3) coupled to the amplifier unit (1) is a piezoelectric sound transducer (2) or a dynamic sound transducer (3),
wherein, after a sound transducer (2, 3) has been connected, the amplifier unit (1) sends a test signal to the at least one connected sound transducer (2, 3), in particular in an automated manner.