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### English

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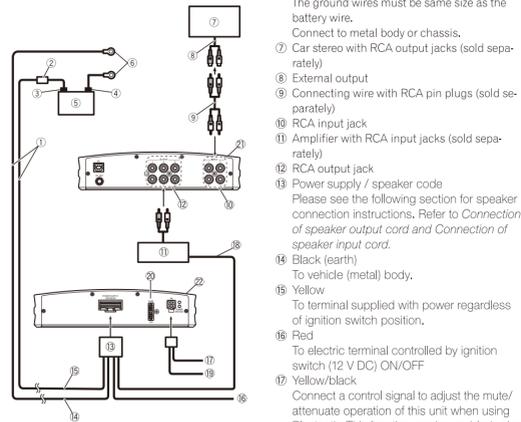
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### Connecting the units

#### Connection diagram



- ① Battery wire (sold separately)
    - The maximum length of the wire between the fuse and the positive (+) terminal of the battery is 30 cm.
    - For the wire size, refer to *Connecting the power terminal*. The battery wire, the ground wire and the optional direct ground wire must be same size. After making all other connections at the amplifier, connect the battery wire terminal of the amplifier to the positive (+) terminal of the battery.
  - ② Fuse 30 A (sold separately)
  - ③ Positive (+) terminal
  - ④ Negative (-) terminal
  - ⑤ Battery (sold separately)
  - ⑥ Ground wire, Terminal (sold separately)  
 The ground wires must be same size as the battery wire.  
 Connect to metal body or chassis.
  - ⑦ Car stereo with RCA output jacks (sold separately)
  - ⑧ External output
  - ⑨ Connecting wire with RCA pin plugs (sold separately)
  - ⑩ RCA input jack
  - ⑪ Amplifier with RCA input jacks (sold separately)
  - ⑫ RCA output jack
  - ⑬ Power supply / speaker code  
 Please see the following section for speaker connection instructions. Refer to *Connection of speaker output cord and Connection of speaker input cord*.
  - ⑭ Black (earth)  
 To vehicle (metal) body.
  - ⑮ Yellow  
 To terminal supplied with power regardless of ignition switch position.
  - ⑯ Red  
 To electric terminal controlled by ignition switch (12 V DC) ON/OFF
  - ⑰ Yellow/black  
 Connect a control signal to adjust the mute/attenuate operation of this unit when using Bluetooth. This function can be enabled using the DSP Controller. If not, keep the Audio Mute lead free of any connections.
  - ⑱ Blue/white  
 Connect to system control terminal of the power amp (max. 300 mA 12 V DC).
  - ⑲ Light green  
 Used to detect the ON/OFF status of the handbrake. This lead must be connected to the power supply side of the handbrake switch.
- If this connection is made incorrectly or omitted, certain functions of this product will be unusable.**
- ⑳ Fuse 15 A
  - ㉑ Front side
  - ㉒ Rear side

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### Connecting the units

#### Before connecting the amplifier

##### ⚠ WARNING

- Secure the wiring with cable clamps or adhesive tape. To protect the wiring, wrap sections in contact with metal parts in adhesive tape.
- Never cut the insulation of the power supply to feed power to other equipment. Current capacity of the wire is limited.

##### ⚠ CAUTION

- Never shorten any wires, the protection circuit may malfunction.
- Never band together multiple speaker's negative cables.
- If the system remote control wire of the amplifier is connected to the power terminal via the ignition switch (12V DC), the amplifier will remain on with the ignition whether the car stereo is on or off, which may exhaust battery if the engine is at rest or idling.
- Install and route the separately sold battery wire as far as possible from the speaker wires. Install and route the separately sold battery wire, ground wire, speaker wires and the amplifier as far away as possible from the antenna, antenna cable and tuner.

#### About suitable specification of speaker

Ensure speakers conform to the following standards, otherwise there is a risk of fire, smoke or damage. Speaker impedance is 2 Ω to 8 Ω, or 4 Ω to 8 Ω for two-channel and other bridge connections.

##### Subwoofer

Speaker channel	Power
Each channel output : 1 ch to 4 ch	Nominal input : Min. 40 W

##### Other than subwoofer

Speaker channel	Power
Each channel output : 1 ch to 4 ch	Nominal input : Min. 80 W

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### Before you start

#### Thank you for purchasing this PIONEER product

To ensure proper use, please read through this manual before using this product. It is especially important that you read and observe **WARNINGs** and **CAUTIONs** in this manual. *Please keep the manual in a safe and accessible place for future reference.*

#### Visit our website

Visit us at the following site:  
<http://pioneer.jp/en/info/globalnetwork/>  
 We offer the latest information about PIONEER CORPORATION on our website.

#### If you experience problems

Should this product fail to operate properly, please contact your dealer or nearest authorized Pioneer Service Station.

#### Before connecting/ nstalling the amplifier

##### ⚠ WARNING

- Do not attempt to install or service this product by yourself. Installation or servicing of this product by persons without training and experience in electronic equipment and automotive accessories may be dangerous and could expose you to the risk of electric shock, injury or other hazards.

- Slots and openings in the cabinet are provided for ventilation to ensure reliable operation of the product, and to protect it from overheating. To prevent fire hazard, the openings should never be blocked or covered with items (such as papers, floor mat, cloths).
- This unit is for vehicles with a 12V battery and negative grounding. Before installing in recreational vehicles, trucks or buses, check the battery voltage.
- When installing this unit, make sure to connect the ground wire first. Ensure that the ground wire is properly connected to metal parts of the car's body. The ground wire of the one of this unit must be connected to the car separately with different screws. If the screw for the ground wire loosens or falls out, it could result in fire, generation of smoke or malfunction.
- Be sure to install the fuse to the battery wire.
- Always use a fuse of the rating prescribed.
- The use of an improper fuse could result in overheating and smoke, damage to the product and injury, including burns.
- Check the connections of the power supply and speakers if the fuse of the separately sold battery wire or the amplifier fuse blows. Determine and resolve the cause, then replace the fuse with an identical equivalent.
- Always install the amplifier on a flat surface. Do not install the amplifier on a surface that is not flat or on a surface with a protrusion. Doing so could result in malfunction.
- When installing the amplifier, do not allow parts such as extra screws to get caught between the amplifier and the automobile. Doing so could cause malfunction.

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### Before you start

- Do not allow this unit to come into contact with liquids. Electrical shock could result. Also, damage to this unit, smoke, and overheating could result from contact with liquids. The surfaces of the amplifier and any attached speakers may also heat up and cause minor burns.
- In the event of any abnormality, the power supply to the amplifier is cut off to prevent equipment malfunction. If this occurs, switch the system power off and check the power supply and speaker connections. If you are unable to determine the cause, please contact your dealer.
- Always disconnect the negative (-) terminal of the battery beforehand to avoid the risk of electric shock or short circuit during installation.
- Do not attempt to disassemble or modify this unit. Doing so may result in fire, electric shock or other malfunction.
- When installing the amplifier, make sure to leave space around the amplifier for ventilation to improve heat radiation. And install to a location where it cannot be touched during operation.

##### ⚠ CAUTION

- Always keep the volume low enough to hear outside sounds.
- Extended use of the car stereo while the engine is at rest or idling may exhaust the battery.
- The graphical symbol  placed on the product means direct current.

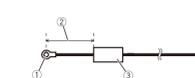
#### About the protection function

This product has protection function. When this product detects something abnormal, the following functions will operate to protect the product and speaker output.

- The **POWER/PROTECT** indicator will turn red and the amplifier will shut down in the situations outlined below.
  - If the temperature inside the amplifier gets too high.
  - If a DC voltage is applied to the speaker output terminal.
- The **POWER/PROTECT** indicator will turn red and the output will be muted in the situations outlined below.
  - If the speaker output terminal and speaker wire are short-circuited.

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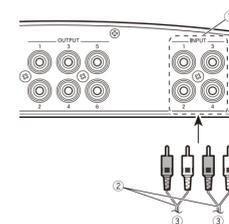
### Connecting the units



- ① Positive (+) terminal
- ② Battery wire (sold separately)  
 The maximum length of the wire between the fuse and the positive (+) terminal of the battery is 30 cm.
- ③ Fuse 30 A (sold separately)  
 Each amplifier must be separately fused at 30 A (sold separately).

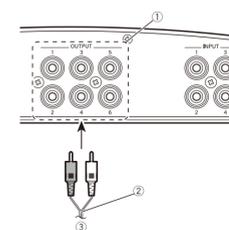
##### ⚠ CAUTION

- Never shorten any wires, the protection circuit may malfunction.
- Never wire the speaker negative cable directly to ground.
- Never band together multiple speaker's negative cables.
- If the RED wire (ACC wire) of the amplifier is connected to the power terminal via the ignition switch (12 V DC), the amplifier will remain on with the ignition whether the car stereo is on or off, which may exhaust battery if the engine is at rest or idling.
- Install and route the power cord, ground wire, speaker wires and the amplifier as far away as possible from the antenna, antenna cable and tuner.



- ① RCA input jack
- ② Connecting wires with RCA plugs (sold separately)
- ③ From the car stereo (RCA output) or the DAP (AUX output)

#### Connections when using the RCA output jack



- ① RCA output jack
- ② Connecting wires with RCA plugs (sold separately)
- ③ To the car amplifier (sold separately)

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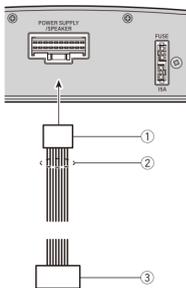
#### Connections when using the RCA / AUX input jack

Connect the car stereo RCA output jack or the DAP AUX output and the RCA input jack of the amplifier.

### Connecting the units

#### Connections when using the speaker input wire

Connect the car stereo speaker output wires to the amplifier using the supplied speaker input cord.

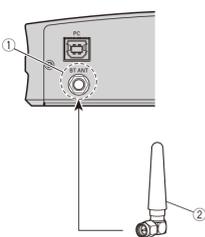


- ① Power supply/Speaker cord  
 To signal input terminal of this unit.
- ② Speaker cord
  - White/black : Speaker (-)
  - White : Speaker (+)
  - Gray/black : Speaker (-)
  - Gray : Speaker (+)
  - Green/black : Speaker (-)
  - Green : Speaker (+)
  - Violet/black : Speaker (-)
  - Violet : Speaker (+)
- ③ Car Stereo or navigation system

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#### Bluetooth antenna connections

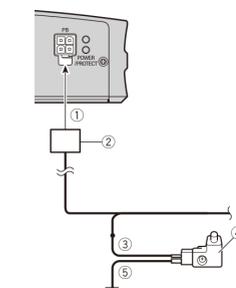
#### Connect to the Bluetooth antenna terminal



- ① Bluetooth antenna terminal
- ② Bluetooth antenna

#### Parking brake wire connections

#### Connect to the parking brake switch using the parking brake wire



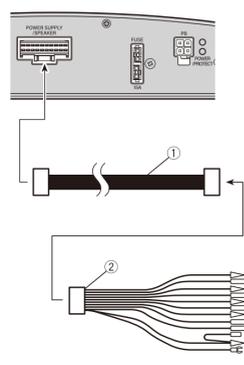
- ① To parking brake wire input
- ② Parking brake wire  
 Used to detect the ON/OFF status of parking-brake. This lead must be connected to power supply side of the parking brake switch.
- ③ Power supply side
- ④ Parking brake switch
- ⑤ Ground side

##### Note

- When the parking brake cable is not connected, a part of the exclusive application (DSP Controller) function is limited.

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#### Extension cord connections



- ① Extension cord (2.5 m)
- ② Power supply/Speaker cord

#### Download DSP Controller

**To use this unit, download "DSP Controller" to the Windows OS PC, iOS or Android OS Smartphone. Enter the search from the following address link.**



##### For PC

<https://jp.pioneer/ja/car/dsp/terms/en.php>

##### For Smartphone



This function is compatible with iPhones that have iOS 16.6 or later installed, or smartphones that have Android OS 10.0 or later installed.  
 The following Windows operating systems and browsers are supported:  
 Microsoft® Windows® 10/11 The latest version of Microsoft Edge at the time of release

##### ⚠ WARNING

- Do not attempt to operate the application while driving. Make sure to pull off the road and park your vehicle in a safe location before attempting to use the controls on the application.

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#### Operation Manual for DSP Controller

**Please access website below and refer to the operation manual about an instructions how to use the "DSP Controller".**

##### Manual for PC



[https://www.pioneer-carglobal.com/dspamp/PC\\_manual\\_EN](https://www.pioneer-carglobal.com/dspamp/PC_manual_EN)

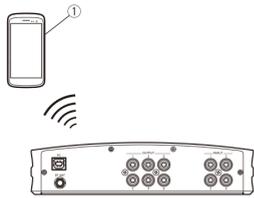
##### Manual for Smartphone



[https://www.pioneer-carglobal.com/dspamp/Apps\\_manual\\_EN](https://www.pioneer-carglobal.com/dspamp/Apps_manual_EN)

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**For Bluetooth devices**



① Bluetooth devices (sold separately)

**Connection procedure (connection to DSP Controller)**

1. Turn on Bluetooth on the Bluetooth device and connect from the DSP Controller.

**Connection procedure (connection as an audio source)**

1. Press the Bluetooth connection button in the DSP Controller to enter pairing mode.
2. Connect to the item marked "Pioneer DEQ-2000A Aud".

**Before installing the amplifier**

**⚠ WARNING**

- To ensure proper installation, use the supplied parts in the manner specified. If any parts other than those supplied are used, they may damage internal parts of the amplifier, or become loose causing the amplifier to shut down.
- Do not install in:
  - Places where it could injure the driver or passengers if the vehicle stops suddenly.
  - Places where it may interfere with the driver, such as on the floor in front of the driver's seat.
- Install tapping screws in such a way that the screw tip does not touch any wire. This is important to prevent wires from being cut by vibration of the car, which can result in fire.
- Make sure that wires do not get caught in the sliding mechanism of the seats or touch the legs of a person in the vehicle as short-circuit may result.
- When drilling to install the amplifier, always confirm no parts are behind the panel and protect all cables and important equipment (e.g. fuel/brake lines, wiring) from damage.

**⚠ CAUTION**

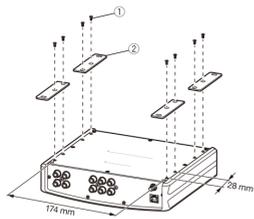
- To ensure proper heat dissipation of the amplifier, ensure the following during installation:
  - Allow adequate space above the amplifier for proper ventilation.
  - Do not cover the amplifier with a floor mat or carpet.
- Place all cables away from hot places, such as near the heater outlet.
- The optimal installation location differs depending on the car model. Secure the amplifier at a sufficiently rigid location.
- Check all connections and systems before final installation.
- After installing the amplifier, confirm that the spare tire, jack and tools can be easily removed.

**Example of installation on the floor mat or chassis**

**1 Place the amplifier in the desired installation location.**

Insert the supplied tapping screws (4 mm x 18 mm) into the screw holes and push on the screws with a screwdriver so they make an imprint where the installation holes are to be located.

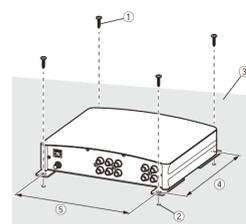
**2 Attach the bracket**



- ① Screw (2.6 mm x 6 mm)
- ② Bracket

**3 Drill 2.5 mm diameter holes at the imprints either on the carpet or directly on the chassis.**

**4 Install the amplifier with the use of supplied tapping screws (4 mm x 18 mm).**



- ① Tapping-screws (4 mm x 18 mm)
- ② Drill a 2.5 mm diameter hole
- ③ Floor mat or chassis
- ④ Hole-to-hole distance: 179 mm
- ⑤ Hole-to-hole distance: 185 mm

**Specifications**

**General**

Power source ..... 14.4 V DC (10.5 V to 16.0 V allowable)  
 Grounding system ..... Negative type  
 Current consumption ..... 15 A (at continuous power, 4 Ω)  
 Average current consumption ... 4.2 A (4 Ω for four channels)  
 Fuse ..... 15 A  
 Dimensions (W×H×D) ..... 200 mm×47 mm×169 mm  
 Weight ..... 1.60 kg (Leads for wiring not included)

**Audio / DSP**

Maximum power output ..... 80 W×4 (at 14.4 V, 4 Ω)  
 Continuous power output ..... 40 W×4 (at 14.4 V, 4 Ω, 1 kHz, 5% THD)  
 Load impedance ..... 4 Ω, 2 Ω to 8 Ω (allowable)  
 Frequency response ..... 20 Hz to 40 kHz (+0 dB, -3 dB)  
 Preout output level (MAX) ..... 4.0 V  
 Signal-to-noise ratio ..... 90 dB (Speaker output) (HF-A network)  
 105 dB (RCA output) (HF-A network)  
 Distortion ..... 0.1 % (Speaker output) (10 W, 1 kHz)  
 0.05 % (RCA output) (0 dBs, 1 kHz)  
 Input sensitivity :  
 RCA ..... 0.2 V to 4 V  
 Speaker ..... 4 V to 16 V  
 Maximum input level / Impedance :  
 RCA ..... 4 V / 10 k Ω  
 Speaker ..... 16 V / 8 Ω or 22 k Ω  
 Sampling rate ..... 96 kHz / 24 bit  
 A / D converter ..... 32 bit  
 D / A converter ..... 24 bit  
 Speaker level ..... -60 dB to +0 dB (0.1 dB / step)  
 Phase ..... NORMAL / REVERSE  
 Equalizer type .....  
 ..... 31-Band Graphic Equalizer / Parametric Equalizer  
 Equalizer frequency ..... 20 Hz to 20 kHz (1 Hz / step)  
 Equalizer gain ..... -18 dB to +18 dB (0.1 dB / step)  
 Equalizer Q-factor ..... 0.404 to 28.852  
 Time alignment ..... 0 cm to 680 cm (0.35 cm / step)  
 0 inch to 268 inch (0.14 inch / step)  
 0 ms to 20 ms (0.01 ms / step)

**Filter :**

Crossover frequency : 20 Hz to 40 kHz (1 Hz / step)  
 Mode and slope :  
 Butterworth :  
 -48 / -42 / -36 / -30 / -24 / -18 / -12 / -6 (dB / oct)  
 Bessel :  
 -48 / -42 / -36 / -30 / -24 / -18 / -12 / -6 (dB / oct)  
 Linkwitz-Riley :  
 -48 / -36 / -24 / -12 (dB / oct)

Preset EQ ..... Flat / S.Bass/ Powerful / Natural / Vocal  
 Inputs ..... Speaker inputs (4 ch) / RCA inputs (4 ch) / Bluetooth audio  
 Outputs ..... Speaker outputs (4 ch) / RCA outputs (6 ch)

**Bluetooth**

Version ..... Bluetooth 5.1  
 Output power ..... +4 dBm MAX (Power class 2)  
 Frequency band (S) ..... 2.402 MHz to 2.480 MHz  
 Bluetooth profiles .....  
 ..... A2DP (Advanced Audio Distribution Profile) 1.3  
 Audio Codec ..... SBC, AAC

**Accessories**

Power supply / speaker cord ..... 1  
 Extension cord ..... 1  
 Parking brake cord ..... 1  
 Bracket ..... 4  
 Mounting screw (4 mm×18 mm) ..... 4  
 Mounting screw (2.6 mm×6 mm) ..... 8  
 Bluetooth antenna ..... 1  
 USB cable (type-B) ..... 1

**Notes**

- Specifications and the design are subject to modifications without notice.
- The average current consumption is nearly the maximum current consumption by this unit when an audio signal is input. Use this value when working out total current consumption by multiple power amplifiers.

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