



A-dec+™ Gateway

INSTALLATION GUIDE

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Product Models and Versions Covered in This Document

| Models | Versions | Description |
|------------|----------|------------------------|
| 43.0531.00 | n/a | Gateway Network Device |

Before You Begin



WARNING Failure to turn off or disconnect the power before you begin this procedure can lead to product damage and result in serious injury or death.



WARNING Shock hazard. When you remove or replace the covers, take care not to damage any wiring or tubing. Verify that the covers are secure after you replace them.



ATTENTION Circuit boards are sensitive to static electricity. Electrostatic Discharge (ESD) precautions are required when touching a circuit board or making connections to or from the circuit board. Circuit boards should be installed only by an electrician or qualified service person.

Recommended Tools

- Hex key set

Install the A-dec+ Gateway

For all A-dec systems, except the 500 Pro delivery systems, you must install the A-dec+ Gateway to use the A-dec+ system. The A-dec+ Gateway can be placed in a chair floorbox or in a cabinet near the chair. Wired Ethernet is the preferred connection method over Wi-Fi, if possible.

Follow the appropriate procedure for your installation.

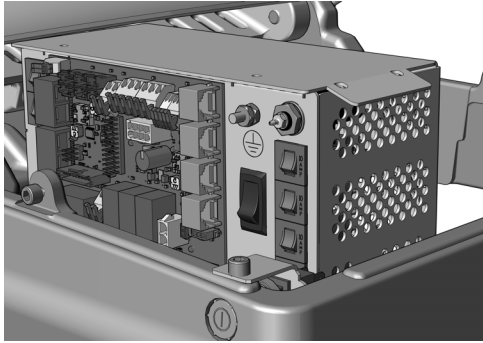
- Install the Gateway in a Floorbox 2**
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Install the Gateway in a Floorbox

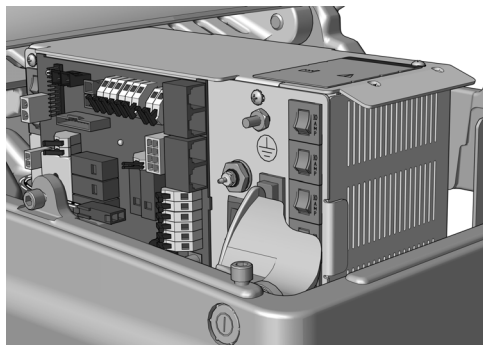
1. Turn off the power to the system.
2. Remove the floorbox cover.
3. Remove the pump cover.
4. Place the Gateway in the floorbox.

Connect the Electrical Wires and Data Line

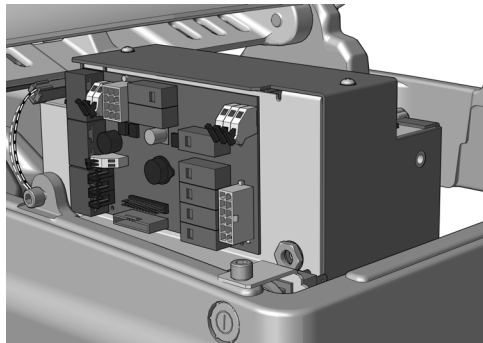
Complete the following section according to which power supply the system includes.



**A-dec Universal Power Supply Manufactured
After June 2023 4**



**A-dec 311B/411 Power Supply Manufactured
Before June 2023 6**



**A-dec 511 Power Supply Manufactured Before
June 2023 8**

A-dec Universal Power Supply Manufactured After June 2023

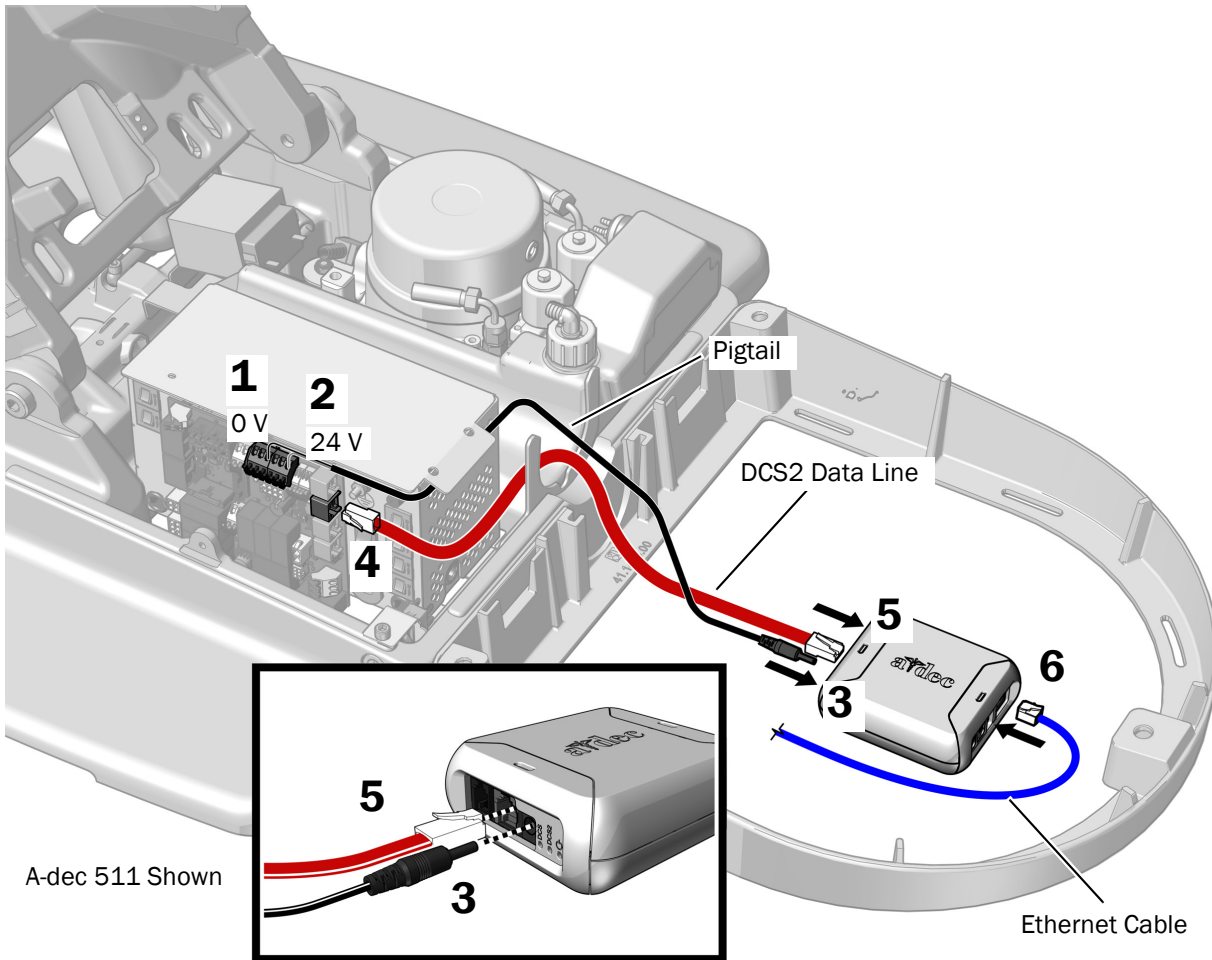
You can power the Gateway using the chair circuit board or the external power supply. Complete one of the following procedures based on how the Gateway will be powered.

Power the Gateway Using the Chair Circuit Board 4

Power the Gateway Using the External Power Supply 5

Power the Gateway Using the Chair Circuit Board

1. Plug the black with white stripe wire of the pigtail power cable into the 0 V connector.
2. Plug the black wire of the pigtail power cable into the 24 V connector.
3. Plug the pigtail connector into the Gateway.
4. Plug one end of the red DCS2 data line into a DCS2 data port on the chair circuit board.
5. Plug the other end of the red DCS2 data line into the DCS2 port on Gateway.
6. If you will use Ethernet instead of Wi-Fi for the network connection:
 - (1) Connect one end of the Ethernet cable to the Gateway.
 - (2) Connect the other end of the Ethernet cable to a router.



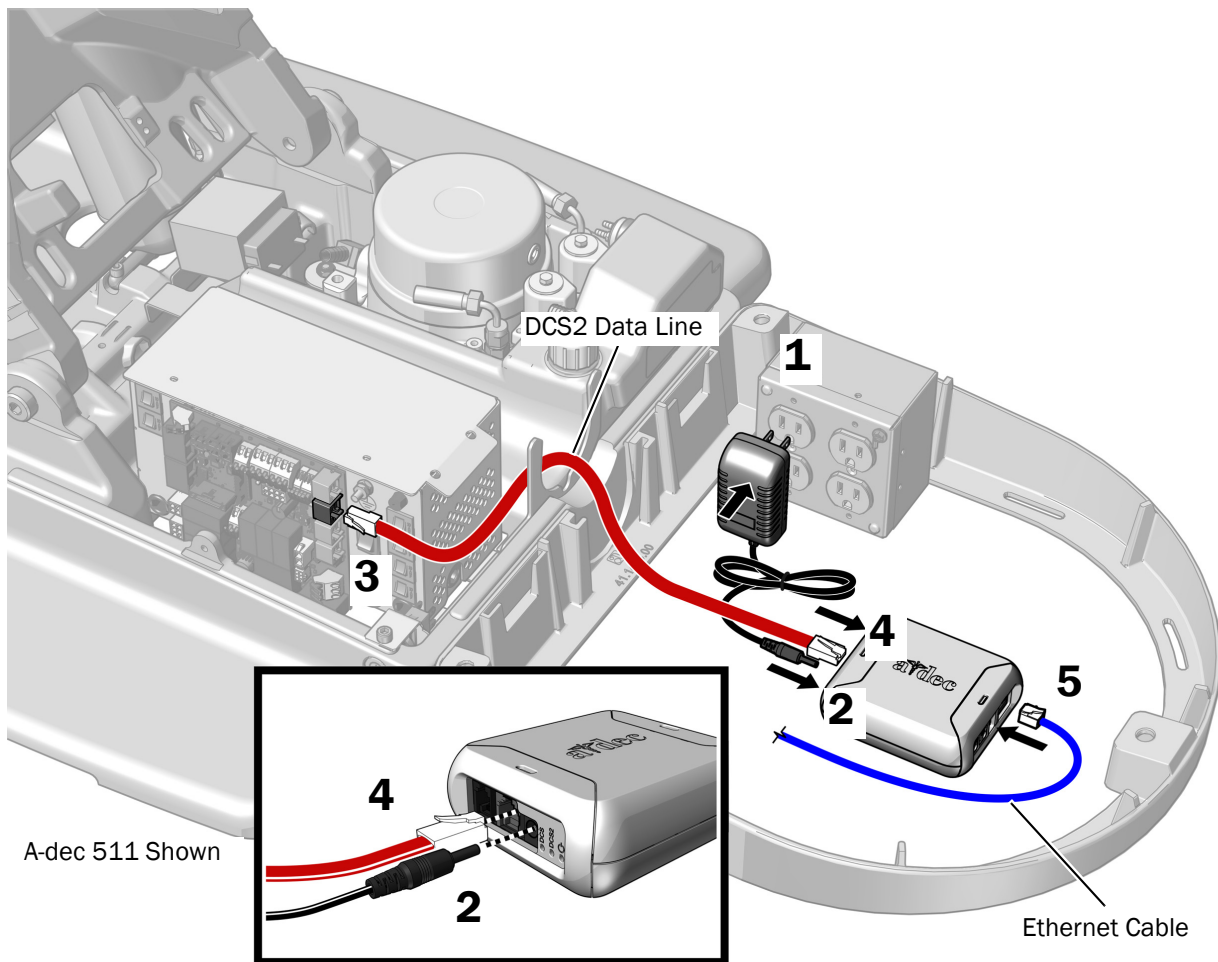
Next Step See "Connect to A-dec+" on page 11.

Power the Gateway Using the External Power Supply



WARNING Fire hazard. Use only the external power supply provided with the Gateway. Using another external power supply might result in a fire hazard. Another power supply might also result in an inability to meet conducted emissions standards.

1. Plug the external power supply into an outlet.
2. Plug the external power supply cable into the Gateway.
3. Plug one end of the red DCS2 data line into a DCS2 data port on the chair circuit board.
4. Plug the other end of the red DCS2 data line into the DCS2 port Gateway.
5. If you will use Ethernet instead of Wi-Fi for the network connection:
 - (1) Connect one end of the Ethernet cable to the Gateway.
 - (2) Connect the other end of the Ethernet cable to a router.



Next Step See "Connect to A-dec+" on page 11.

A-dec 311B/411 Power Supply Manufactured Before June 2023

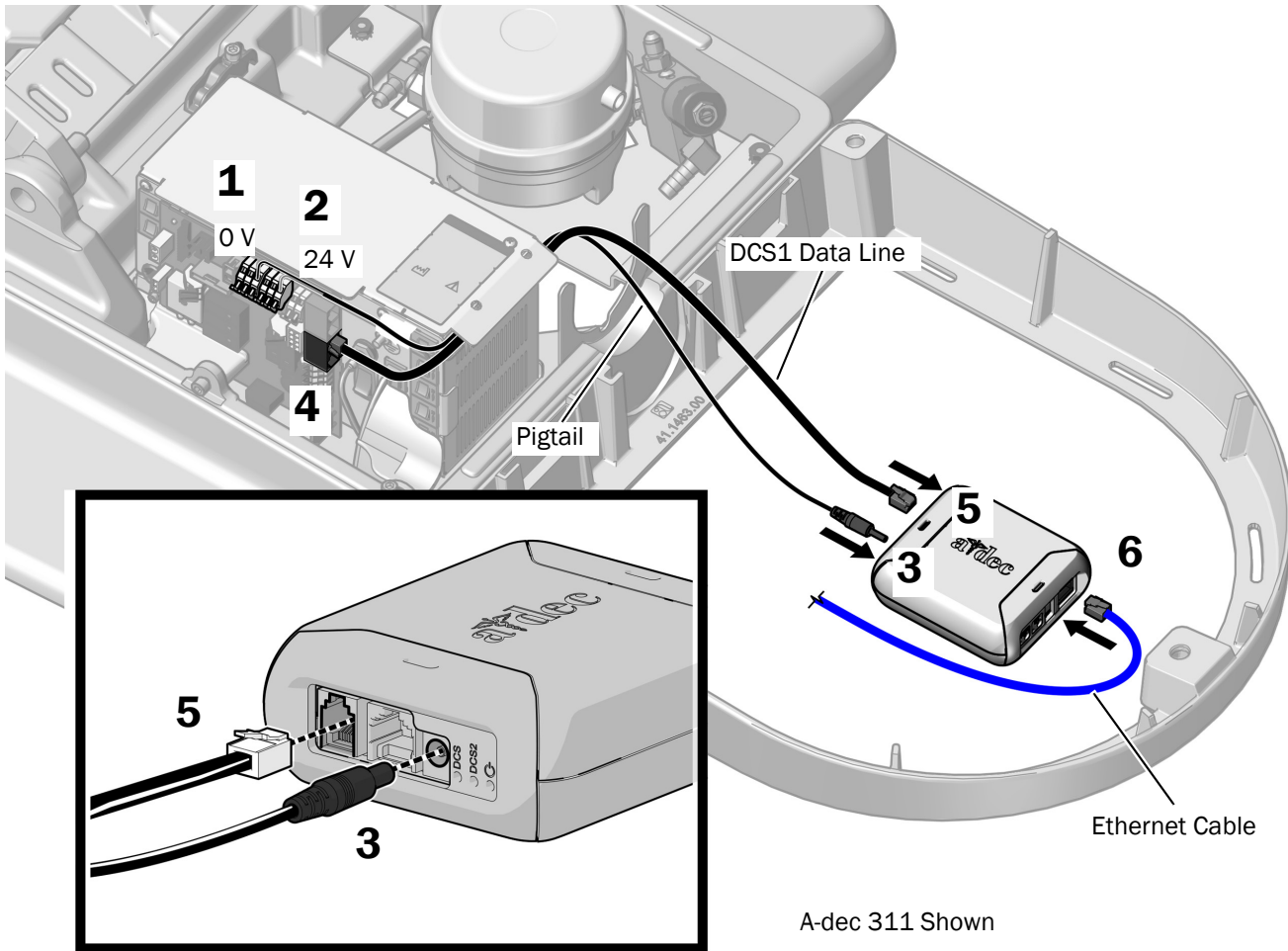
You can power the Gateway using the chair circuit board or the external power supply. Complete one of the following procedures based on how the Gateway will be powered.

Power the Gateway Using the Chair Circuit Board 6

Power the Gateway Using the External Power Supply 7

Power the Gateway Using the Chair Circuit Board

1. Plug the black with white stripe wire of the pigtail power cable into the 0 V connector.
2. Plug the black wire of the pigtail power cable into the 24 V connector.
3. Plug the pigtail connector into the Gateway.
4. Plug one end of the DCS1 data line into a DCS1 data port on the chair circuit board.
5. Plug the other end of the DCS1 data line into the DCS1 port on the Gateway.
6. If you will use Ethernet instead of Wi-Fi for the network connection:
 - (1) Connect one end of the Ethernet cable to the Gateway.
 - (2) Connect the other end of the Ethernet cable to a router.



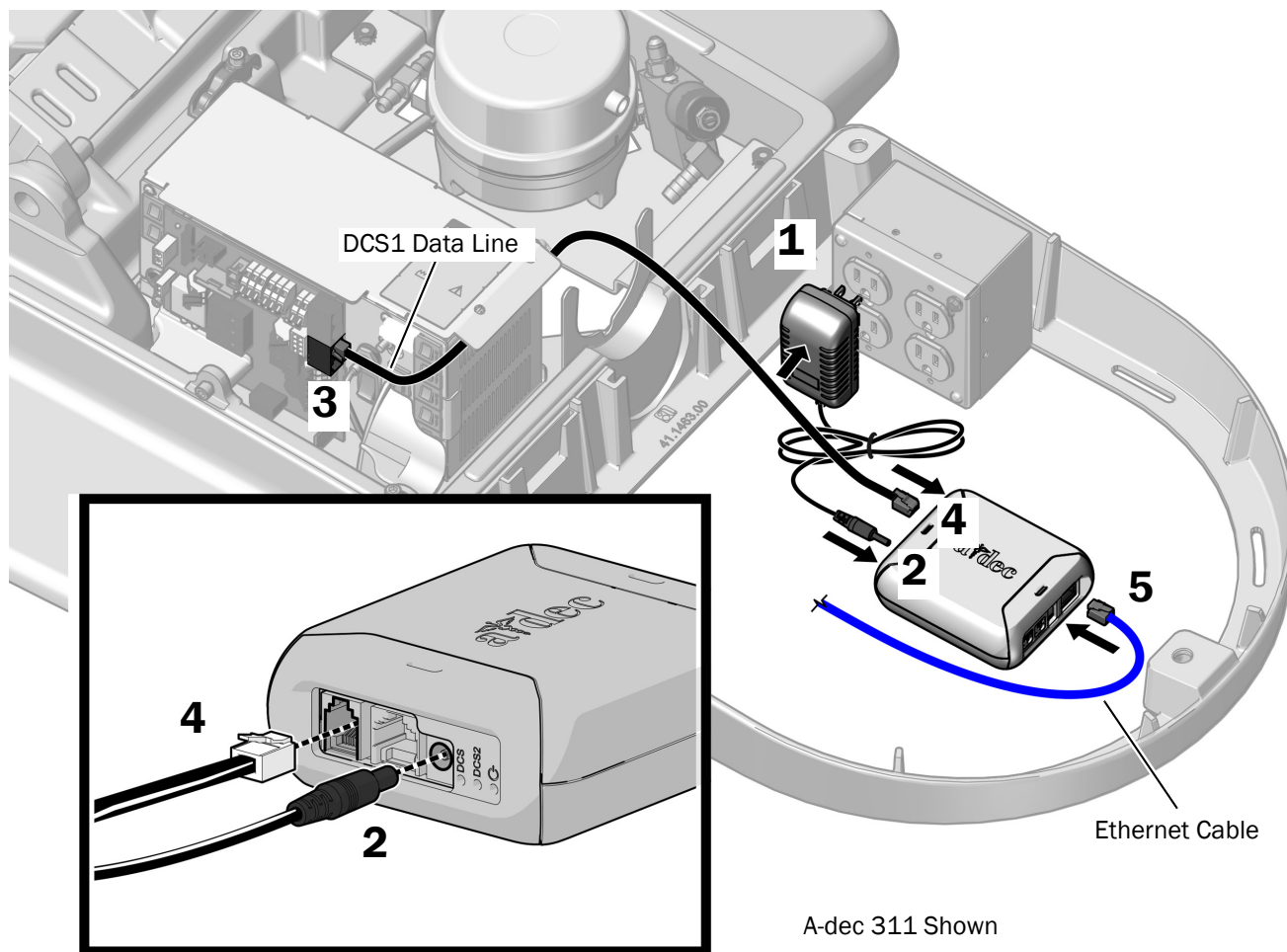
Next Step See "Connect to A-dec+" on page 11.

Power the Gateway Using the External Power Supply



WARNING Fire hazard. Use only the external power supply provided with the Gateway. Using another external power supply might result in a fire hazard. Another power supply might also result in an inability to meet conducted emissions standards.

1. Plug the external power supply into an outlet.
2. Plug the external power supply cable into the Gateway.
3. Plug one end of the black DCS1 data line into a DCS1 data port on the chair circuit board.
4. Plug the other end of the black DCS1 data line into the DCS1 port on the Gateway.
5. If you will use Ethernet instead of Wi-Fi for the network connection:
 - (1) Connect one end of the Ethernet cable to the Gateway.
 - (2) Connect the other end of the Ethernet cable to a router.



Next Step See “Connect to A-dec+” on page 11.

A-dec 511 Power Supply Manufactured Before June 2023

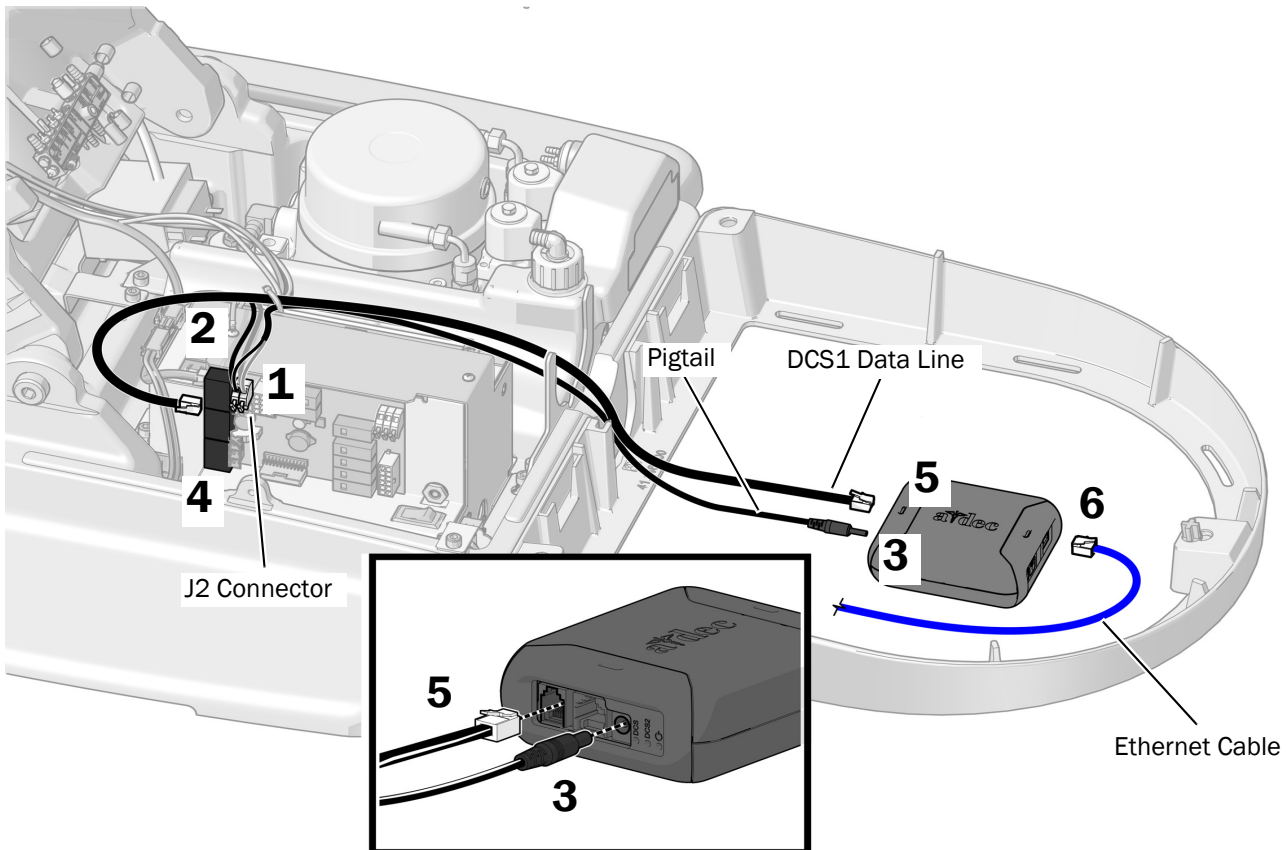
You can power the Gateway using the chair circuit board or the external power supply. Complete one of the following procedures based on how the Gateway will be powered.

Power the Gateway Using the Chair Circuit Board 8

Power the Gateway Using the External Power Supply 9

Power the Gateway Using the Chair Circuit Board

1. Remove the existing wires from the J2 connector.
2. Twist the pigtail wires onto the wires removed from J2.
 - (1) Wrap the pigtail black with white stripe wire around the black wire from J2. Wrap the pigtail black wire around the gray wire from J2.
 - (2) Insert the wires back into the original terminals. Insert original black wire into the J1 0 V position, and the original gray wire into the J2 24 V position.
3. Plug the pigtail connector into the Gateway.
4. Plug one end of the DCS1 data line into a DCS1 data port on the chair circuit board.
5. Plug the other end of the DCS1 data line into the Gateway.
6. If you will use Ethernet instead of Wi-Fi for the network connection:
 - (1) Connect one end of the Ethernet cable to the Gateway.
 - (2) Connect the other end of the Ethernet cable to a router.



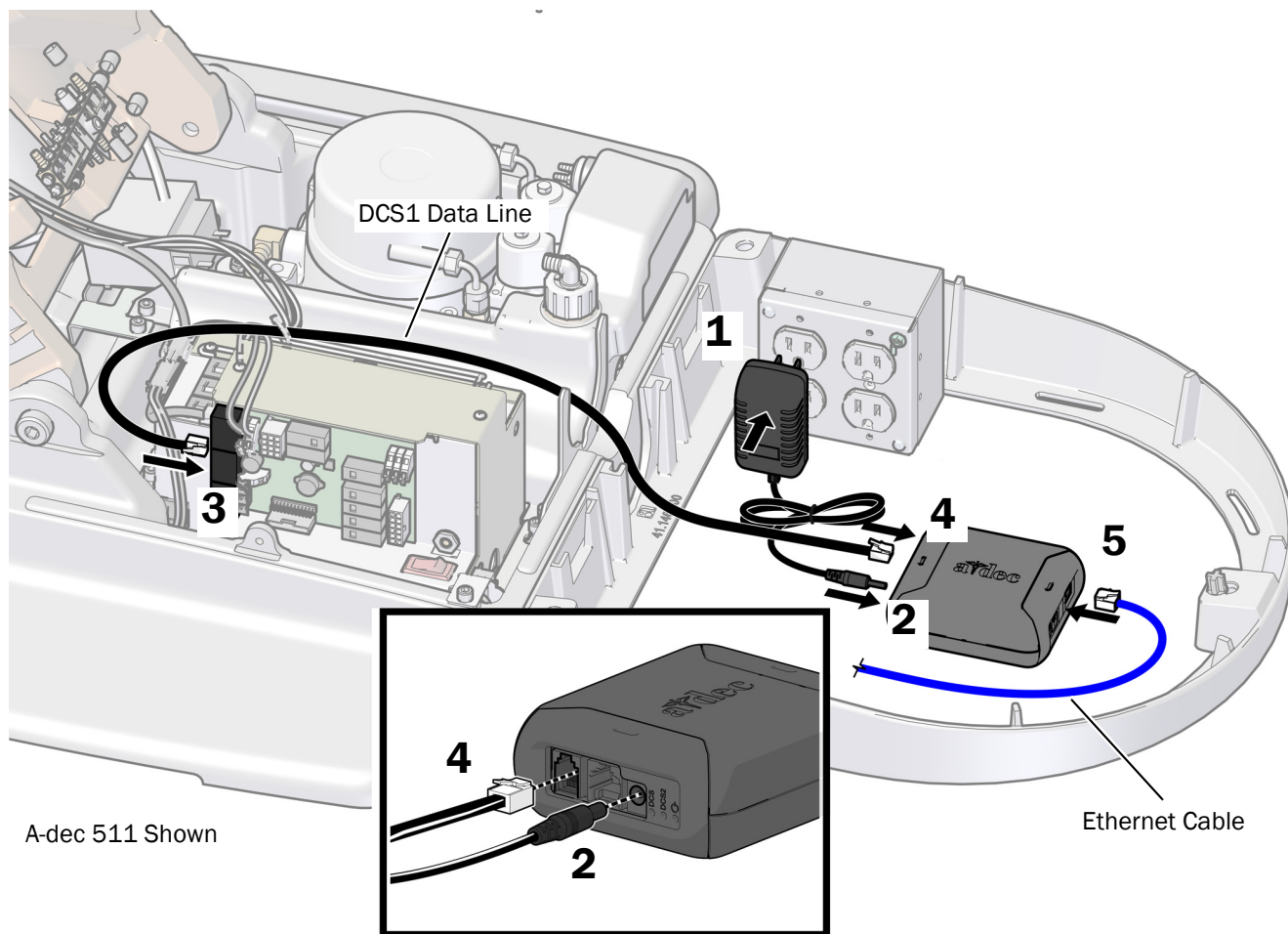
Next Step See “Connect to A-dec+” on page 11.

Power the Gateway Using the External Power Supply



WARNING Fire hazard. Use only the external power supply provided with the Gateway. Using another external power supply might result in a fire hazard. Another power supply might also result in an inability to meet conducted emissions standards.

1. Plug the external power supply into an outlet.
2. Plug the external power supply cable into the Gateway.
3. Plug one end of the DCS1 data line into a data port on the chair circuit board.
4. Plug the other end of the DCS1 data line into the DCS1 data port on the Gateway.
5. If you will use Ethernet instead of Wi-Fi for the network connection:
 - (1) Connect one end of the Ethernet cable to the Gateway.
 - (2) Connect the other end of the Ethernet cable to a router.



Next Step See “Connect to A-dec+” on page 11.

Install the Gateway in a Cabinet



NOTE Choose a cabinet that is close to the dental chair.

1. Place the Gateway in the cabinet.



NOTE Do not locate the Gateway near an antenna or transmitter, such as a Wi-Fi router. Do not place items directly on top of the Gateway. Allow an air gap around the Gateway for best Wi-Fi performance.

2. Route a data line from the Gateway to the chair circuit board:
 - (1) For a chair power supply manufactured after June 2023 (see the illustrations on page 3), route a red DCS2 data line from the Gateway in the cabinet to the chair circuit board.
 - (2) For a power supply manufactured before June 2023 (see the illustrations on page 3), route a black DCS1 data line from the Gateway in the cabinet to the chair circuit board.
3. Connect the data line to the Gateway:



CAUTION Plugging a black DCS1 data line into a DCS2 port can damage the product.

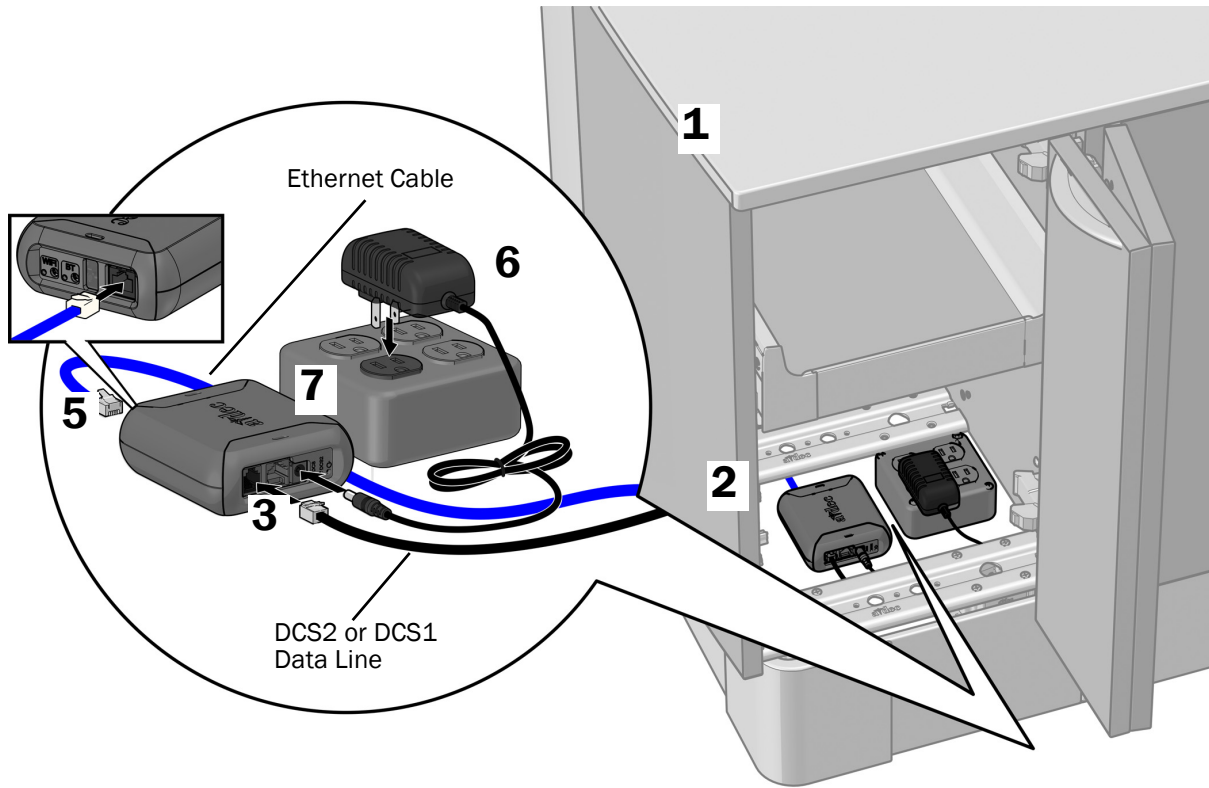
- (1) **For a red DCS2 data line:** Plug the end of the data line into the DCS2 data port on the Gateway.
 - (2) **For a black DCS1 data line:** Plug the end of the data line into the DCS1 data port on the Gateway.
4. Connect the data line to the chair circuit board:
 - (1) **For a red DCS2 data line:** Plug the data line into a DCS2 data port on the chair circuit board (DCS2 data ports are located on the toe end of the chair circuit board).
 - (2) **For a black DCS1 data line:** Plug the data line into a DCS1 data port on the chair circuit board (DCS1 data ports are located on the head end of the chair circuit board).
5. If you will use Ethernet instead of Wi-Fi for the network connection:
 - (1) Connect one end of the Ethernet cable to the Gateway.
 - (2) Connect the other end of the Ethernet cable to a router.



WARNING Fire hazard. Use only the external power supply provided with the Gateway. Using another external power supply might result in a fire hazard. Another power supply might also result in an inability to meet conducted emissions standards.

6. Plug the external power supply into an outlet.

7. Plug the connector from the external power supply into the Gateway.



Connect to A-dec+



For configuring connectivity features, see the *A-dec+™ Instructions for Use* (p/n 86.1030.00) at a-dec.com/connectivity-manual.



Regulatory Information and Warranty

For required regulatory information and the A-dec warranty, see the *Regulatory Information, Specifications, and Warranty* document (p/n 86.0221.00) available in the Resource Center at www.a-dec.com.



For quick access to this document online, scan, tap, or click this QR code, which points to a-dec.com/regulatory-guide.

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A-dec Headquarters

2601 Crestview Drive
Newberg, OR 97132 USA
Tel: 1.800.547.1883 Within USA/CAN
Tel: +1.503.538.7478 Outside USA/CAN
www.a-dec.com

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