



Knowledge Base

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ADC-VDB770 wiring guide

ADC-VDB770 wiring guide

Choose the number of VDB770s and chimes connected to the same circuit to view a wiring guide for that configuration.

Select the number of VDB770s

☐ One VDB770

☐ Two VDB770s

Select the number of chimes

☐ One chime

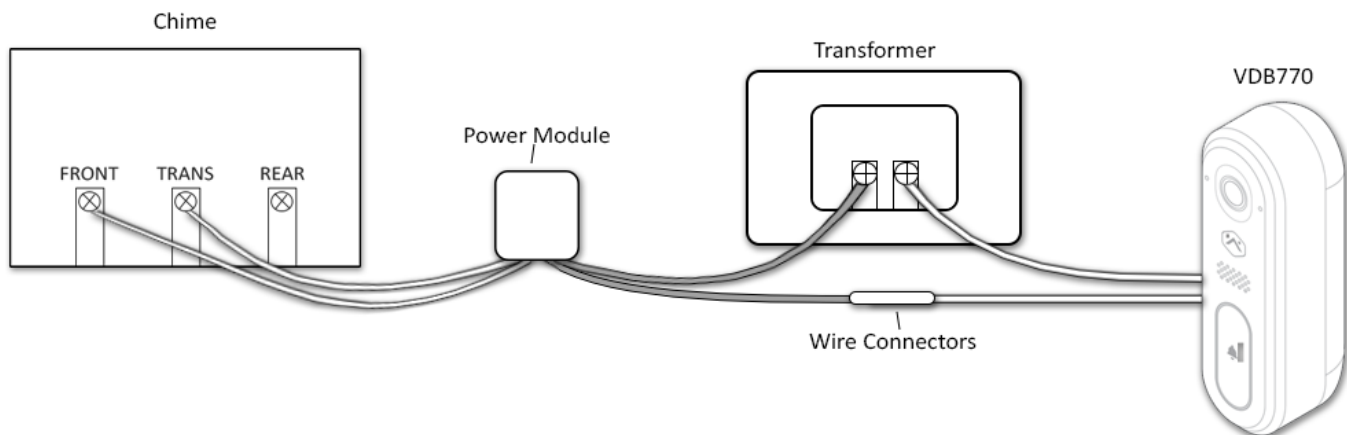
☐ Two chimes

☐ No chimes

The combination you selected has not yet been tested. If you are interested in Alarm.com supporting this configuration with a wiring diagram, contact Alarm.com CORE Technical Support with your request.

Wire a VDB770 to a chime

Transformer: **16-30VAC 10-30VA** | Power Module: **Required** | Resistor: **Not Required** | Chime Type: **Mechanical or Digital**

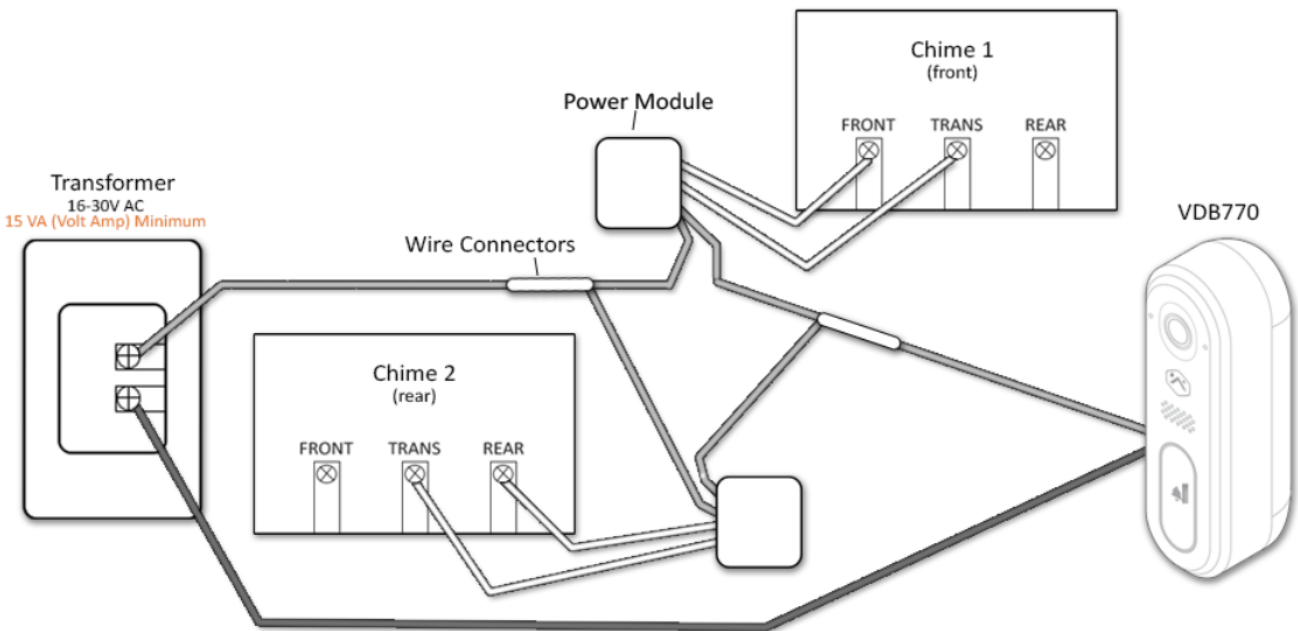


1. On the power module, attach the white wires interchangeably to the *FRONT* and *TRANS* terminals on the chime.
2. Attach the gray wires interchangeably to the transformer and the ADC-VDB770.
3. On the ADC-VDB770, attach the remaining wire to the transformer.

Important: If there is a secondary analog doorbell button wired to the chime, the power requirements and wiring for the ADC-VDB770 are not affected.

Wire a VDB770 to two chimes

Transformer: **16-30VAC 15-30VA** | Power Module: **Required** | Resistor: **Not Required** | Chime Type: **Mechanical or Digital**



Important Things to Note:

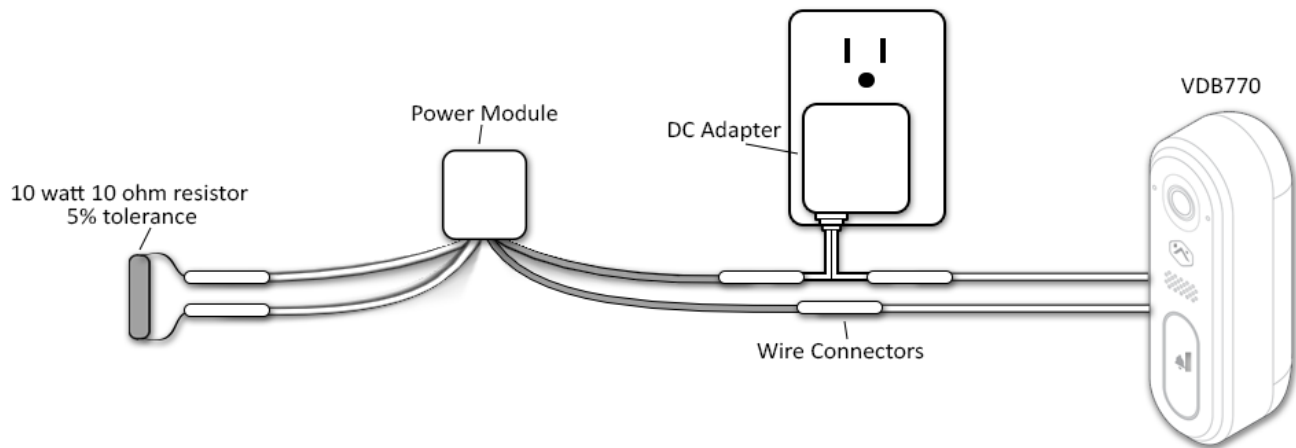
- Two chimes in a series: Not Supported
- Two chimes in **parallel**: Supported for Mechanical and Digital Chimes (see diagram)
- Transformer Requirements: 15 VA (Volt Amps) **minimum** - 30 VA max

1. On the first power module, attach the white wires interchangeably to the *FRONT* and *TRANS* terminals on the chime.
2. On the second power module, attach the white wires interchangeably to the *REAR* and *TRANS* terminals on the chime.
3. Attach one of each of the power modules to the transformer using a wire connector.
4. Attach one of each of the power modules to the ADC-VDB770 using a wire connector.
5. On the ADC-VDB770, attach the remaining wire to the transformer.

Wire a VDB770 without a chime

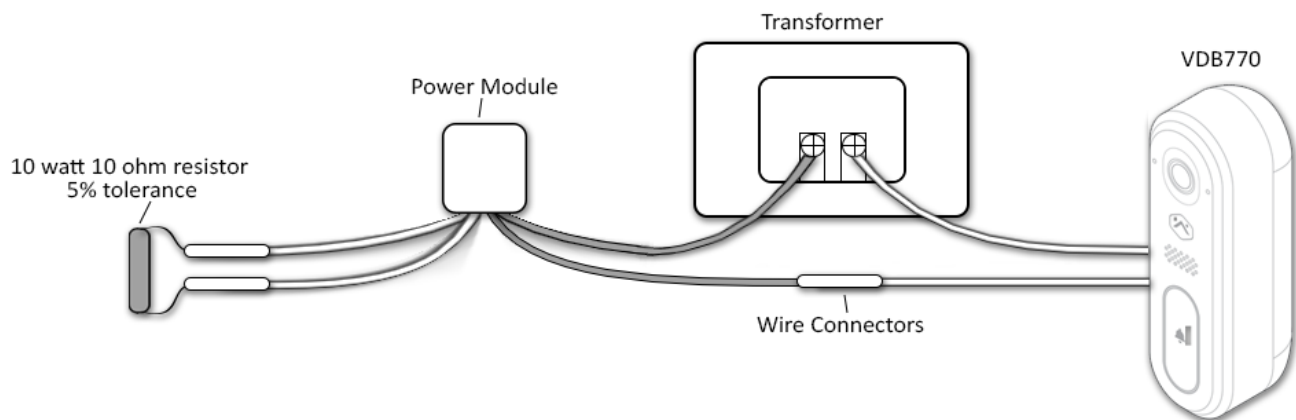
Transformer: **15-30VDC, 8W minimum** or **16-30VAC 10-30VA** | Power Module: **Required** | Resistor: **10 Watts 10 Ohms with 5% tolerance** | Chime Type: **N/A**

Using a DC power source



1. On the power module, attach the white wires interchangeably to a resistor (10 Watts 10 Ohms with 5% tolerance).
2. Attach the gray wires interchangeably to a DC transformer and the ADC-VDB770.
3. On the ADC-VDB770, attach the remaining wire to the transformer.

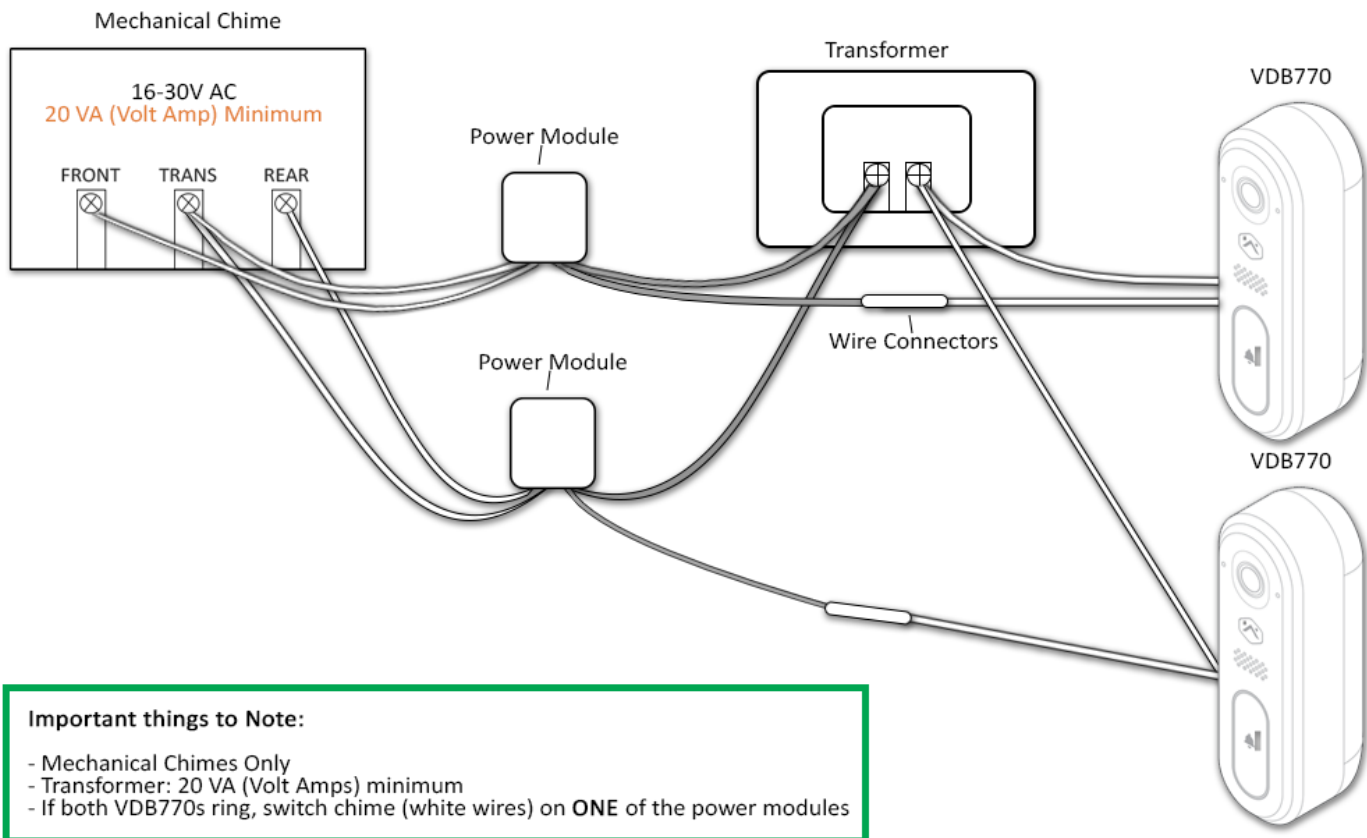
Using an AC power source



1. On the power module, attach the white wires interchangeably to a resistor (10 Watts 10 Ohms with 5% tolerance).
2. Attach the gray wires interchangeably to an AC transformer and the ADC-VDB770.
3. On the ADC-VDB770, attach the remaining wire to the transformer.

Wire two VDB770s to a mechanical chime

Transformer: **16-30VAC 20-30VA** | Power Module: **Required** | Resistor: **Not Required** | Chime Type: **Mechanical Only**



Doorbell camera 1

1. On the power module, attach the white wires interchangeably to the *FRONT* and *TRANS* terminals on the chime.
2. Attach the gray wires interchangeably to the transformer and the ADC-VDB770.
3. On the ADC-VDB770, attach the remaining wire to the transformer.

Doorbell camera 2

1. On the power module, attach the white wires interchangeably to the *REAR* and *TRANS* terminals on the chime.
2. Attach the gray wires interchangeably to the transformer and the ADC-VDB770.

3. On the ADC-VDB770, attach the remaining wire to the transformer.

To verify that the VDB770 has enough power after it is enrolled:

1. Log into the Partner Portal.
2. Find the customer account.
3. Click **Equipment**.
4. Click **Video Devices**.
5. Using the *Device* dropdown menu, select the ADC-VDB770.
6. In *AC Power Check*, click **Run**.

Frequently asked questions

Expand all

What is the recommended wire gauge/AWG for a video doorbell camera? ^

18-20 gauge wire (AWG) is recommended for all video doorbell camera installations. 18-20 AWG provides the correct amount of resistance needed to power a video doorbell camera.

Gauges outside of these recommendations affect the resistance of the wire and may deliver incorrect power to the device.

Can the ADC-VDB770 be connected to a chime with another doorbell attached? ^

Yes. Verify that the transformer can support the power requirements for both the ADC-VDB770 and the other doorbell.

If the transformer can support the power needs of both doorbells, wire each doorbell independently according to the manufacturer's specifications.

Can two ADC-VDB770s be wired to a single digital chime? ^

No. Digital chimes cannot support more than one ADC-VDB770 at a time.

Can the micro USB port power the ADC-VDB770? ^

Yes. However, it should only be used temporarily for troubleshooting. The ADC-VDB770's backplate acts as a heat sink to regulate its temperature and must be in place for long-term operation. Otherwise, the device could overheat and cause damage to itself and the user.

Can the ADC-VDB770 be used without a Power Module? ^

Yes. The following power configurations do not need a Power Module installed:

- An ADC-VDB770 powered using the Video Doorbell Wall Power Kit (ADC-VDBA-PSU-DC). For more information, see [How does the Video Doorbell Wall Power Supply Kit work?](#).
- An ADC-VDB770 powered using its micro USB port to perform short-term testing.

Important: All other power configurations for the ADC-VDB770 require the Power Module.