# Verify if the ADC-VDB750 is receiving enough power

## AC power

### Run the AC Power Check tool

If the device is powered by an AC transformer, the AC Power Check tool can be used to verify if the ADC-VDB750 is receiving enough power.

The AC Power Check will force the device into a high-power condition for 20 seconds and will monitor the AC Voltage detected by the doorbell to determine if the transformer and wiring can deliver the required power. The test is designed to identify issues related to high resistance wiring, poor transformer performance under load, or unexpected components in the circuit that can result in performance issues that may not be immediately evident when the device is first powered on.

**Important**: The ADC-VDB750 supports the use of a plug-in DC power supply in installations with mechanical chimes.

If the doorbell is powered by a DC power supply, the AC Power Check should not be used. The result will not be valid.

Expand all

**To run the AC Power Check tool using the MobileTech app:**

1. Log into the MobileTech app.
2. Find the customer account.
3. Tap **Equipment**.
4. Tap **Video Devices**.
5. Find the desired video device and tap **Go to Device**.
6. Tap **AC Power Check**.
7. Tap **Run** to start the test. Wait about 20 seconds to view the results.

**To run the AC Power Check tool using the Partner Portal:**

1. Log into the Partner Portal.
2. Find the customer account.

3. Click **Equipment**.
4. Click **Video Devices**.
5. Using the *Video Device* dropdown menu, select the desired video device.
6. In *AC Power Check,* click **Run**.
7. Click **Run** again to start the test. Wait about 20 seconds to view the results.

#### Possible results of the test

- *PASS*
- *PASS (MARGINAL)*
  - The transformer was able to power the device through the test, but the AC Voltage detected indicates that there may be insufficient power delivered during times of peak usage or as the transformer performance degrades over time. This device may experience performance issues such as low speaker volume or the indoor chime not ringing. Please consider upgrading the transformer to ensure stable performance.
- *FAIL*
  - The transformer was not able to power the device through the test. Please upgrade the transformer to ensure stable performance.

### Replacing the transformer

If the transformer needs to be upgraded, we recommend installing a transformer with voltage and power ratings above the minimum required by the ADC-VDB750 (e.g. upgrade to 24VAC, 20VA transformer) to accommodate the multiple potential causes of insufficient power to the doorbell. In cases where the resistance of the wiring is the primary cause, a higher-rated transformer than what was originally installed will be required to avoid replacing the wiring.

In cases where it is not possible to fully replace the transformer (e.g., an electrician is required), the transformer can instead be bypassed by removing the wires from the low voltage (secondary) side of the existing transformer and connecting those to a plug-in style AC transformer.

**Note:** In installations where the use of an AC transformer is not applicable, the ADC-VDB750 supports the use of a DC power supply with mechanical chimes. For more information about using a DC power supply, see Wire the ADC-VDB750 to a chime.

## DC power

If the device is powered by a DC source (e.g., ADC-VDBA-PSU-DC):

1. Verify the wiring. For information about wiring the ADC-VDB750, see Wire the ADC-VDB750 to a chime and Wire the ADC-VDB750 without a chime.
2. Disconnect the ADC-VDB750 from the circuit and use a digital multimeter (or similar device) to measure the voltage and current at the two wires that were connected to the doorbell. Verify that they are within the rated range.

## Recommended wire gauge/AWG

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.