

<b>Title:</b>	Use of Power Filters Supplied with Cameras	<b>Version:</b>	1.0	<b>Date:</b>	12/13/19
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<b>Action Required:</b>	Information Only				

## Summary

Producing high resolution analog video and transmitting it via coaxial or ethernet cable involves certain issues, and those issues need to be remedied by any means necessary. Some Hikvision cameras that are dual voltage, and powered by AC current are susceptible to interference in the video signal, which has been traced to minor spikes in the AC current. These spikes are not drastic enough to cause any functionality issues such as rebooting or ceasing operation, but are enough to create interference in the output video signal. The same type of interference can be seen in some DC powered cameras. Just like in the case of AC powered cameras, the DC powered cameras are also affected by the current entering the camera. The current can pick up a high frequency oscillating signal from the surrounding area and transmit it to the camera, causing interference.

To remedy this issue, Hikvision began including 24 VAC to 12 VDC power converters that are equipped with high frequency filters, with dual voltage camera models. Since DC powered cameras do not require a power converter, high frequency power filters (that do not convert the power) are included with the DC only models.

At the end of this document all the model numbers of the cameras that require these filters are specified. The filters are included with cameras manufactured since **June 2019**.

**NOTE:** If your camera was manufactured prior to June 2019, Hikvision will ship these filters to you free of charge, should they be required. Contact the rma team via e-mail at [rma.usa@hikvision.com](mailto:rma.usa@hikvision.com). Provide the camera's model number, serial number, place of purchase, number of filters required, and shipping address.

## Filter Use

The use of the power filters is simple. Place a filter between the camera and the leads/connectors coming out of the power supply. Figure 1 shows the filters and the types of connections they have.

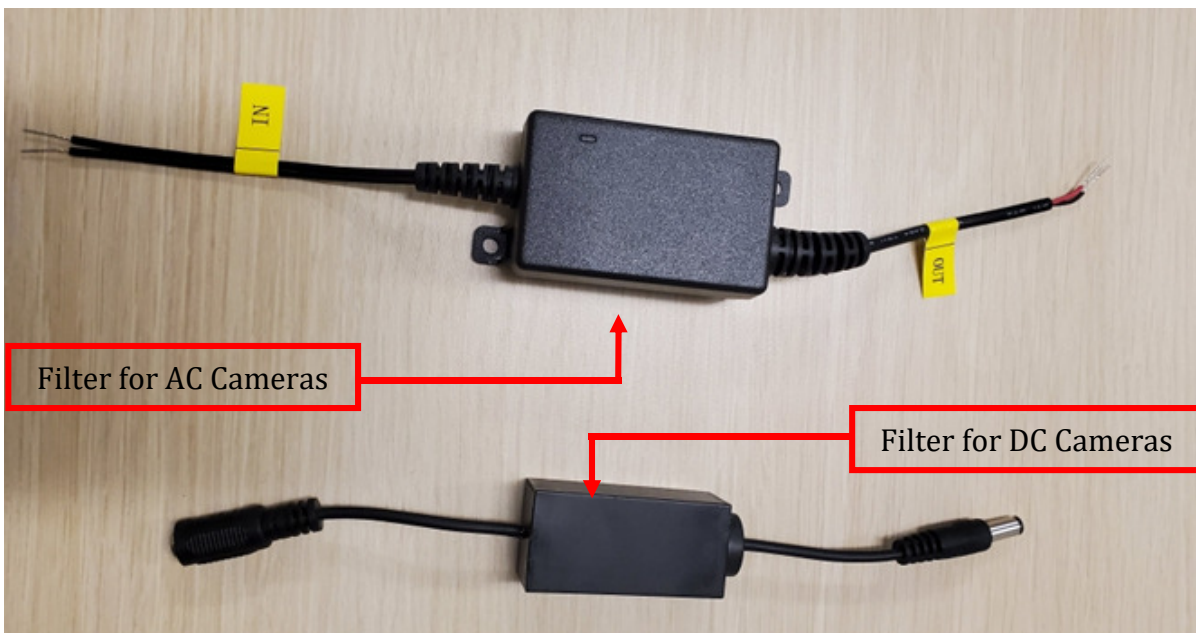


Figure 1, Filters

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The filter for AC cameras has the flying leads marked “IN” and “OUT” with yellow flags. The “IN” end of the filter connects to the 24 VAC power supply (“IN” represents Power IN) and the “OUT” end connects to the camera. In order to connect the AC filter, the leads from the AC power supply connect to the filter’s “IN” leads with wirenuts or compression “beanie” connectors, and the “OUT” leads connect to the camera’s phoenix (screw) terminals.

The filter for DC cameras has a female barrel connector on the input side, and a male barrel connector on the output side. This way, no additional pigtailed or other connectors are necessary. The DC power supply already has a male pigtail coming out to connect to the camera, and the filter will simply be placed between the power supply and the camera:

Figures 2 and 3 show the connected DC and AC filters respectively:



*Figure 2, DC Filter Installed*

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Figure 3, AC Filter Installed

### Cameras that Require Filters

The list below indicates the model numbers of cameras that require filters. Cameras manufactured since June 2019 already have the filters included in the box. The ending of the model number is not specified for all cameras.

**NOTE:** If your camera was manufactured prior to June 2019, Hikvision will ship these filters to you free of charge, should they be required. Please contact the RMA Team via e-mail at [rma.usa@hikvision.com](mailto:rma.usa@hikvision.com). Provide the camera's model number, serial number, place of purchase, number of filters required, and the shipping address.

DS-2CC12D9T-A	DS-2CC12D9T	DS-2CC12D9T-A	DS-2CC12D9T	DS-2CC12D9T-E
DS-2CC12D9T-E	DS-2CC12D9T-AIT3ZE	DS-2CC12D9T-IT3E	DS-2CC12D9T-IT3E	DS-2CC12D9T-IT5E
DS-2CC12D9T-AIT3ZE	DS-2CC12D9T-IT3E	DS-2CC12D9T-IT5E	DS-2CC52D9T-AVPIT3ZE	DS-2CC52D9T-AITZE
DS-2CC52D9T-IT3E	DS-2CC52D9T-AVPIT3ZE	DS-2CC52D9T-AITZE	DS-2CC52D9T-IT3E	