

Panasonic Advanced Ventilation Fans

Troubleshooting Common Problems & Solutions



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Panasonic Advanced Ventilation Fans

Trouble Shooting

Fan does not work

- Reasons: No power to the motor. Bad motor.
- Fix: Check to make sure there is power to the fan (look for tripped GFI or circuit breaker turned off). If power is on, check to see the Fan Motor (molex connector) is plugged into bulkhead connector. If it is, unplug and check for power at the bulkhead connector with a voltage tester. If everything is connected and power is present, and the motor still won't operate, the fan needs to be replaced.



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Trouble Shooting

Fan is too loud

- Reason: Almost always this is caused by static pressure. A sure way to check is to separate the fan from the ductwork (either at the duct collar, or if that is not accessible, drop the fan motor assembly from the housing); if the fan is quiet without the duct, the problem is static pressure.
- If the fan is not quiet, there is an issue with the motor and it will need to be replaced.



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Trouble Shooting

Fan is too loud (Continued)

- **Fix:** Check to see if the tape was removed from the backdraft damper. Check to see the backdraft damper opens freely. Check to see if the termination (wall cap, roof jack or soffit cap) open freely and isn't blocked. Ensure the duct run is not crushed. See what can be done to straighten and shorten the duct run.



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Trouble Shooting

Fan is too loud (continued)

- If long duct run (may or may not be able to help), usually in excess of 20 feet can cause fan to be loud.

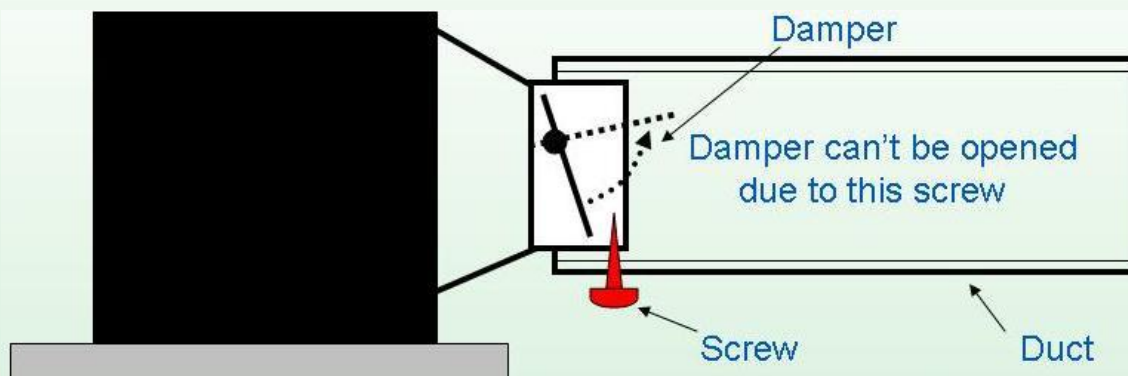


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Trouble Shooting

Fan is too loud (continued)

- Were screws used to secure the ducting to the fan damper? Did they screw the ducting into the duct connector and it is holding the damper shut? Will need to either remove screws and use approved tape or if you cannot get to the damper, will need to remove motor assembly and file down the screws from the inside of the damper until the damper opens freely.



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Trouble Shooting

Fan is too loud (continued)

- Installed the fan with the duct facing in opposite direction of where they are venting it. In this case a 90 degree elbow is on the fan from the start. In this case try to straighten the duct from the fan to about 3 feet off the duct and then try to only use a 45 degree angle instead of 90 degree if possible.



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Trouble Shooting

Fan is too loud (continued)

- Wall cap or roof jack is stuck shut. Sometimes in installation the damper on the wall or roof cap can stick shut with snow or heat. Make sure this is opening when fan is running.
- Wall cap, roof jack or soffit vent is not hooked up to the ducting and the ducting is crushed in the attic.
- Excess duct sagging or rolled up in the ceiling instead of excess cut and ducting in the straightest run.



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Trouble Shooting

Fan is too loud (continued)

- What duct size was used? Should always use rated duct size and not reduced from 4" duct to 3" duct (or from 6" duct to 4" duct).
- What type of ducting are they using? Dryer venting, flex, insulation flex, rigid pipe? Dryer venting will cause excess noise in the fan and long duct runs of flex will as well.



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Trouble Shooting

Fan trips the GFI

- Reasons: Fan is mis-wired, GFI too sensitive/faulty.
- Fix: Try replacing GFI. If problem persists, call a licensed contractor to troubleshoot wiring. (I've also had this problem resolved by changing the switch that operates the fan.)



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Trouble Shooting

Fan makes mechanical noise

- Reasons: Fan not secured well, vibration, bad motor, crooked blower wheel.
- Fix: Ensure the fan is well secured to the joists and is not vibrating; also ensure the same for the ductwork. Remove motor assembly from housing with motor still plugged in check for excess wobble on the blower wheel, which could rub/knock against the housing. Blower wheel can be reseated, but this may not be within a typical homeowner's capabilities. If blower wheel is on correctly and the noise persists, it is likely a bad motor; if so, replace the motor.



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Trouble Shooting

Lights don't work

- Reasons: Miswired light kit, no power, bad ballast, bad lamps.
- Fix: Check power connections to the light fixture. On new 32 Watt light kits, reversing the molex connector will cause the lamp to blow. (New style molex connectors are being used to prevent this.) Check for small cracks at base of lamps. Try new lamps. If replacing lamps does not correct the problem, ballast likely needs to be replaced.



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Trouble Shooting

Lights worked for a while, then stopped working/blinking

- Reason: Ballast is bad/overheating. Ballast sensitive to overvoltage/power problems.
- Fix: Check to see if power is present. Check power at bulkhead connector for voltage (generally between 108V – 130V is acceptable; anything else could hurt the ballast). Call a licensed contractor if voltage is outside acceptable range. Make sure there is nothing external causing the ballast to overheat. Ballast will need to be replaced.



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Trouble Shooting

Lights flicker

- Reasons: Ballast is overheating or the electronic ballast has been damaged/not functioning properly.
- Fix: Make sure there is nothing external causing the ballast to overheat. Replace the ballast.



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Trouble Shooting

WhisperWarm does not work

- Reason: No power. Unit trips breaker
- Solution: The WhisperWarm requires a 20 Amp circuit. Make sure the unit is on a properly sized breaker and the correct gauge wire.



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Trouble Shooting

Heater unit doesn't work

- Reasons: No power, blower motor is not working, element is burnt out.
- Fix: Check for power at the bulkhead connector. If power is present, replace the heater assembly.



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Trouble Shooting

WhisperGreen fan doesn't change speeds/is too loud

- Reasons: High static pressure.
- Fix: As with other fans, check for high static pressure. Duct material, length of run, elbows and terminations all add static pressure. WhisperGreen fans feature SmartFlow technology which allows the fan to deliver full CFM at 0.25 SP. This works at both high and low speeds, so an 80 CFM WG fan set to run continuously at 50 CFM may sound like it is not changing speeds when it boosts to it's full speed. Conversely, when it resets from high to low speed, it will sound like it has slowed down but then speed up to overcome static pressure.



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Trouble Shooting

FV-08VKS3/FV-13VKS3/FV-04VE1 aren't working properly/changing speeds

- Reasons: Fans miswired.
- Fix: Make sure a licensed contractor handles the wiring. These fans are not wired like the average fan. The fans receive power all the time; speed and on/off function are controlled by signal wires, not current-carrying conductors. Wiring for these units can be confusing; sending PDF wiring diagrams to licensed contractor should help. (Available from your RSM)



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Trouble Shooting

FV-08VKS3/FV-13VKS3

Wiring

A.C.
120V

Single Pole
On/Off Switch

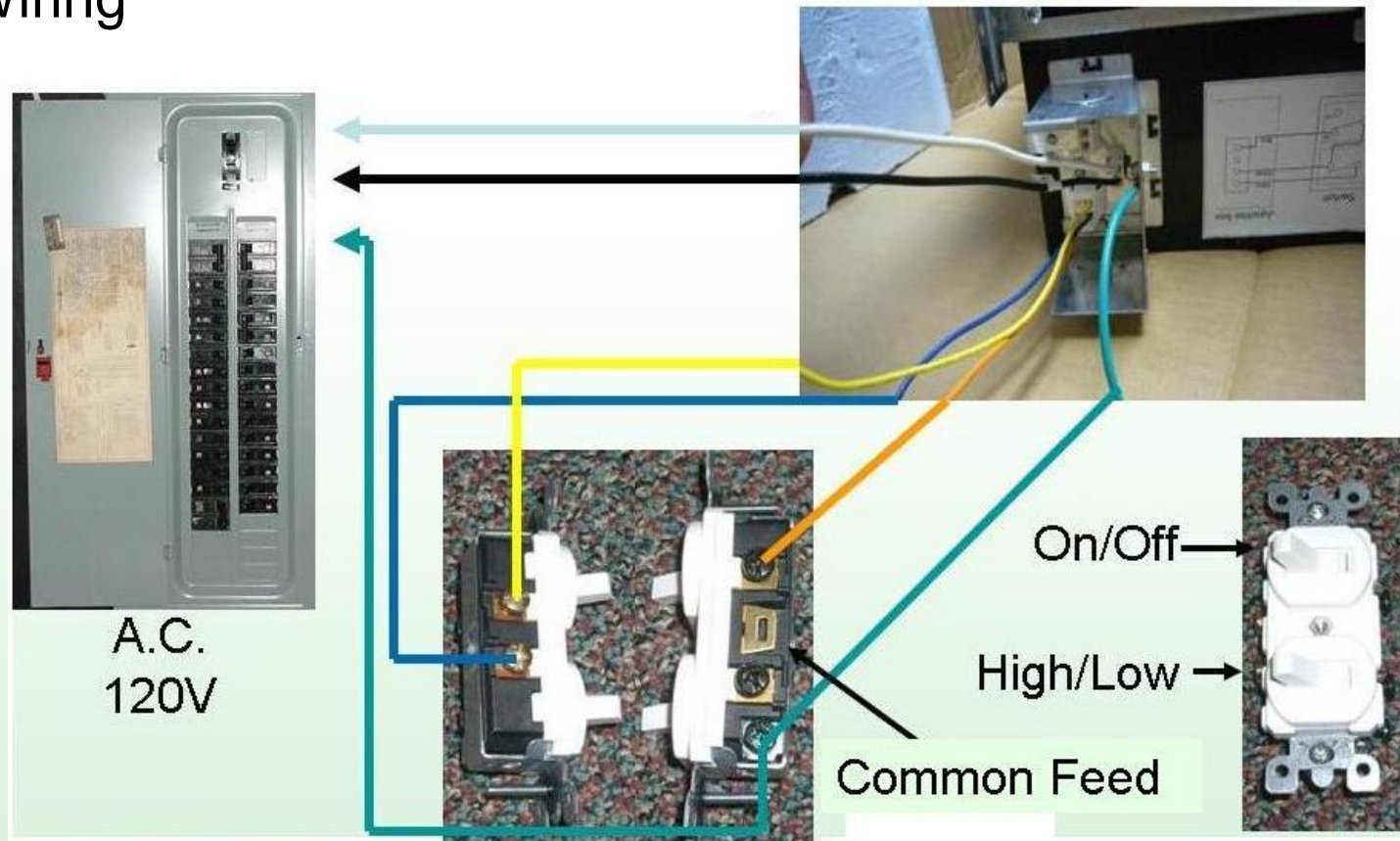


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Trouble Shooting

FV-04VE1 Wiring



Panasonic Advanced Ventilation Fans

Trouble Shooting

Fan is not moving enough air/excess moisture in room

- Reasons: Excess static pressure, undersized fan, insufficient run time, not enough make-up air.
- Fix: Make sure the fan is operating. Once that's established, ensure that the proper sized fan has been installed (based on installation guidelines). If proper CFM has been selected, look into static pressure; a properly sized fan at .1 static pressure will be undersized at .25 static pressure. Once those issues have been ruled out, find out how the homeowner uses the fan.



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Trouble Shooting

Fan is not moving enough air/excess moisture in room (Continued)

- Often, they are not letting the fans run long enough to allow for make-up air to move through the bathroom, especially in newer, tighter homes. A fan can only exhaust the air available. Typically, the undercut on a bathroom door only allows for 50 CFM of make-up air. If the issue is run time/make-up air, recommend that a countdown timer or delay off switch be installed to allow the fan adequate run time to properly ventilate the room.



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Trouble Shooting

Fan is not moving enough air/excess moisture in room (Continued)

- Another thing to consider is the surface temperatures; when hot damp air meets a cold surface, condensation occurs. Outside walls, cold windows, mirrors and surfaces can all be colder than the moist air, giving the homeowner the impression the fan isn't working. Recommend the homeowner allow the fan to run for an adequate amount of time to exhaust and dry the air in the room.



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Trouble Shooting

Water dripping from grille/paint “blistering” or peeling around grille

- Reason: Moisture condensing in duct run and duct run is at an upward angle from the duct collar. Condensate runs back down through the fan grille.
- Fix: The duct should be insulated to help keep moisture from condensing, and the duct run should be in a slight downward angle from the duct collar. If the angle of the duct run can not be changed, the fan is not being run long enough to adequately remove the moisture. Recommend that the fan be allowed to run longer or install a countdown/delay off timer.



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Trouble Shooting

Fan is oversized/undersized for the room

- Reason: Installer/specifier error, excessive static pressure.
- Fix: Change CFM of fan if static pressure can't be alleviated, or switch to WhisperGreen series. Most fans within a series have interchangeable motor/blower wheel assemblies. However, **you cannot switch between series** (WhisperCeiling to WhisperGreen, for example).



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Trouble Shooting

WhisperCeiling/Light Compatibility

- FV-05VQ5 = FV-08VQ5 = FV-11VQ5 (Guts will fit into FV-15VQ5, but FV-15VQ5 can not be used in other housings due to 4" duct.)
- FV-08VQL5 = FV-11VQL5 (As with WhisperCeiling, guts will fit into FV-15VQL5, but FV-15VQL5 can not be used in other housings due to 4" duct)



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Trouble Shooting

WhisperFit Compatibility

- FV-05VF2 = FV-08VF2 = FV-11VF2
- FV-05VFL3 = FV-08VFL3 = FV-11VFL3

WhisperValue Compatibility

- FV-05VS1 = FV-08VS1 = FV-10VS1
- FV-08VSL2 = FV-10VSL2



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Trouble Shooting

Have a fan only need a fan/light or have fan/light, need a fan only

- Reason: Installer/specifier error, availability.
- Fix: If converting from a fan only to a fan/light, the entire housing will have to be removed and replaced with a fan light unit. The fan only is missing the bulkhead connector and mounting points to add a light kit. Also, additional wiring needs to be added if the customer wants the fan, light, and nightlight features to work independently. If you need to convert from a fan/light to a fan only, you can remove the ballast and supply a fan-only grille.



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Trouble Shooting

Fan and light are on 1 switch; want them on separate switches

- Reason: Installer error; remodel situation and only had available wiring to work with.
- Fix: Need to have a licensed contractor run additional wiring from the switch to the fan.



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Please bookmark:

www.panasonic.com/ventfans

- Technical specifications
- Installation Instruction
- Submittal sheets and architectural specifications
- And much more...