

Centrifugal Ceiling Exhaust & Inline Cabinet Fans

Frequently Asked Questions

1. [My SP-B model fan manufactured between 1996 and now is not working. Replacing multiple components or the entire assembly are both possibilities. Which is my best option?](#)
2. [Where can I find a cross-reference guide for competitor models?](#)
3. [How do I do a stock model lookup in iParts?](#)
4. [I want to add an internally mounted speed controller to my already installed SP-A/B. How do I do this?](#)
5. [I have an obsolete SP/CSP fan model? What was the performance rating for this fan model when ordered?](#)
6. [My fan has been reported as underperforming. What are my first steps in troubleshooting?](#)
7. [Is it possible to convert my CSP model to an SP?](#)
8. [Can models SP/CSP be installed in a sidewall \(vertical\) orientation?](#)
9. [How can I calculate the static pressure of my bathroom exhaust application?](#)
10. [Will SP/CSP fans work in less than ideal applications or in conjunction with poor ducting?](#)
11. [What is a whole house ventilation system?](#)
12. [What certification does my SP fan with ceiling radiation damper maintain?](#)
13. [My fan wheel is rubbing. What steps must I take to fix this?](#)
14. [What about plug type disconnects?](#)
15. [Do you test fans at the factory?](#)
16. [Why can't I select a vibration isolation kit with my SP-AP or SP-VG?](#)
17. [What differences are there between reverse acting and cooling thermostat accessories for my SP/CSP fan?](#)
18. [I cannot find the serial number on my SP-B-QD fan?](#)
19. [My application requires a round duct connection on the outlet of the fan. What are my options based on the fan model?](#)
20. [What is the part number for my speed controller?](#)
21. [Can my model SP/CSP accept 0-10 VDC for speed reference?](#)
22. [Is a wall bypass sensor available?](#)
23. [Can I order replacement screw covers for my designer grille?](#)
24. [What about the part number for grilles and compatibility?](#)
25. [How do I know if the unit I order from the Quick Delivery \(QD\) program uses a 115V motor?](#)
26. [My fan was ordered as 115V. The application requires 277V. Must I replace the 115V motor?](#)

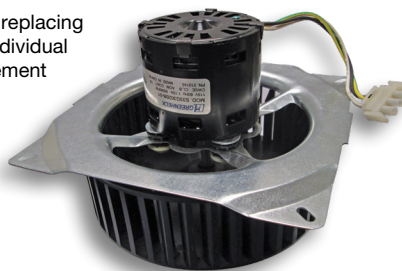
1. My SP-B model fan manufactured between 1996 and now is not working. Replacing multiple components or the entire assembly are both possibilities. Which is my best option?

Replacing components can be time consuming and labor intensive. The best option often is replacing the complete internal assembly using replacement power packs available on [Greenheck Parts](#). Sizes SP-B50 through SP-B200 are available. Note: SP-B models manufactured between 1996 and 2002 require an additional electrical adapter (part #382861).


| Size | Part Number |
|--------------|-------------|
| SP-B50PWRPK | 873436 |
| SP-B70PWRPK | 873437 |
| SP-B80PWRPK | 873438 |
| SP-B90PWRPK | 873439 |
| SP-B110PWRPK | 873440 |
| SP-B150PWRPK | 873441 |
| SP-B200PWRPK | 873442 |

SP-B Replacement Power Packs

Save installation and down time by replacing the entire power pack instead of individual components. Available as a replacement part on all current and previous SP-B models.



2. Where can I find a cross-reference guide for competitor models?

A cross-reference guide for competitor models is available as a PDF in the new Rep Portal >  Product Info > Fan and Ventilators.

3. How do I do a stock model lookup in iParts?

Please note: iParts is being phased out and you will be directed to [Greenheck Genuine Parts](#) for all your parts needs.

All SP/CSP models with a Quick Delivery “QD” suffix are 115V. Parts for these QD models are found easily under the Ceiling Exhaust Fans section of [Greenheck Genuine Parts website](#). In the upper right-hand corner of the website, click on “Browse” and select “Ceiling Exhaust Fans.” In addition to parts for current fan models, parts for legacy (obsolete) models/sizes are also available. You may find parts for configured SP/CSP fans also on the Greenheck parts website by using the serial number search.

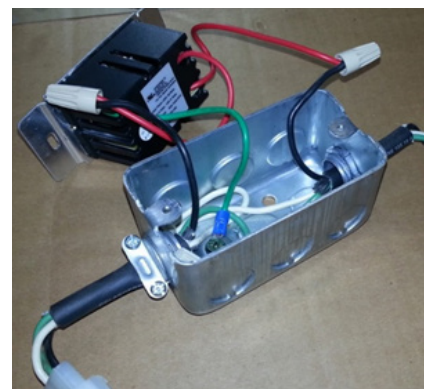
4. I want to add an internally mounted speed controller to my already installed SP-A/B. How do I do this?

A special bracket is spot welded on the inside of the fan cabinet of fans when a speed controller is selected as factory mounted. If the internal speed controller option was not selected when ordered, a standard bracket is used. The standard bracket does not easily accept a field installed speed controller.

Still, it is possible and the following is one method that can work to mount an internal speed controller in the field (SP-B model shown):

The following parts are required:

- 382870 - SP/CRD extension cord, 16” SO 16/3 AWG wire w/amp plug and cap. You will need to divide the cord into two pieces and then wire to opposite ends of the speed controller in the handy box.
- 831315 - 2 1/8 handy box
- 383663 - Romex connectors (need two connectors per fan); these may be field provided or will require a miscellaneous iParts quote request.
- 385031 - 6 amp solid state speed controller



5. I have an obsolete SP/CSP fan model? What was the performance rating for this fan model when ordered?

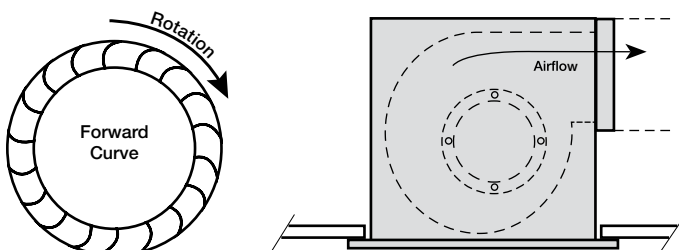
We do not have specific performance information for most obsolete models. See our cross-reference tables listed below to determine today's closest equivalent. Accessories, such as a speed controller, are also important to consider when determining a replacement.

| SP Model Old to New Cross Reference | | | | |
|-------------------------------------|-----------------------|-----------------------|---------------------|------------|
| 1982 - Mar 1989 | Apr. 1989 - Jan. 1996 | Feb. 1996 - June 2002 | June 2002 - Present | NEW DESIGN |
| OLDEST | OLDER | OLD | NEW | |
| | | | New Design | A50 |
| | | | New Design | A70 |
| | | | New Design | A90 |
| | | | New Design | B50 |
| | | | New Design | B70 |
| | | | New Design | B80 |
| | 5 | 5 | C50 | |
| | 6 | 6 | Not Replaced | |
| | | 6.5 | B90 | |
| | | 7 | B110 | |
| | | 9 | B150 | |
| | | 12 | B200 | |
| 8, 15 | 108, 115 | 210 | A110 | |
| | | 216 | A125 | |
| 17 | 117 | 218 | A190 | |
| | | | New Design | A200 |
| 25 | 125 | 224 | A250 | |
| | | 226 | A290 | |
| 27 | 127 | 228 | A390 | |
| 50 | 150 | 250 | A410 | |
| | 152 | 252 | A510 | |
| | | | New Design | A700 |
| 55 | 155 | 255 | A710 | |
| | 158 | 258 | A780 | |
| 60 | 160 | 260 | A900 | |
| | | 262 | A1050 | |
| | | 264 | A1410 | |
| | 165 | 265 | A1550 | |

| CSP Model Old to New Cross Reference | | | |
|--------------------------------------|-----------------------|---------------------|------------|
| Apr. 1989 - Jan. 1996 | Feb. 1996 - June 2002 | June 2002 - present | NEW DESIGN |
| OLDER | OLD | NEW | |
| | 7 | B110 | |
| | 9 | B150 | |
| | 12 | B200 | |
| 108A, 115A | 210 | A110 | |
| | 216 | A125 | |
| 117A | 218 | A190 | |
| | | New Design | A200 |
| 125A | 224 | A250 | |
| | 226 | A290 | |
| 127A | 228 | A390 | |
| 150A | 250 | A410 | |
| 152A | 252 | A510 | |
| | | New Design | A700 |
| | 255 | A710 | |
| 158A | 258 | A780 | |
| 160A | 260 | A900 | |
| 162A | 262 | A1050 | |
| | 264 | A1410 | |
| 165A | 265 | A1550 | |
| 170 | 270 | A1750 | |
| 175 | 275 | A2150 | |
| | 280 | A3600 | |

6. My fan has been reported as underperforming. What are my first steps in troubleshooting?

- Ensure damper on outlet of fan can open fully.
 - It's possible that screws used to attach the outlet duct could prevent the damper from opening fully.
- If a speed controller is used, please bypass or measure voltage out.
 - When the speed controller is turned from the "OFF" position clockwise to "ON", it is at high speed right away. As the speed controller is turned clockwise from high speed, it will slow down. This may be counter intuitive to some, so we want to make sure the device isn't set at low speed.
- Check to ensure the insulation on the inside of the SP/CSP-A is not blocking the scroll outlet.
- Check to ensure scroll is tight to housing.
- Remove bottom access panel or grille to get a view of the wheel. Please ensure correct wheel installation.



7. Is it possible to convert my CSP model to an SP?

Yes, conversion kits are available in iParts and on parts.greenheck.com when the site is available. For an SP to be convertible to a CSP, the SP would need to be selected to have a convertible housing in CAPS.

CSP to SP Conversion Kits (available in iParts)

- CSP-A110 to A190 to SP conversion kit - 826684
- CSP-A200 to A390 to SP conversion kit - 826685
- CSP-A410, 510, 710, 780 to SP conversion kit - 826686
- CSP-A900 to A1550 to SP conversion kit - 826687
- CSP-B50 to B200 to SP conversion kit - 826688

Each Kit includes:

- 1) Instruction sheet
- 1) Grille
- 2) U-clips (Tinnerman)
- 4) Screws
- 1) CSP inlet cover

8. Can models SP/CSP be installed in a sidewall (vertical) orientation?

It is possible to install both SP and CSP models in a sidewall (vertically), provided the wall's depth allows for it. However, please refer to the fan model's IOM as certain models explicitly prohibit wall mount installations. Then consider the following scenarios as each could have an adverse effect on a sidewall installation:

- Weight of larger fans on system collars (SP/CSP)
- Access panel location may not be ideal (CSP)
- Dampers may not close depending on fan's orientation (SP/CSP)
- If motor has an oil port, please ensure it is capped and/or in an upright position (SP/CSP)

Note: Model SP-L is the only fan model that is certified by UL to be mounted in a wall.

9. How can I calculate the static pressure of my bathroom exhaust application?

Visit the Ceiling & Cabinet exhaust section of eCAPS® at ecaps.greenheck.com to use our Static Pressure Calculator. Start by clicking on the Ceiling & Cabinet section on the front page. This takes you to the Basic Inputs page. Click on the input symbol to reveal the calculator. Simply input room dimensions and ductwork information to calculate static pressure and view recommended fan selections.

Volume (CFM)*

External SP (in. wg)*



10. Will SP/CSP fans work in less than ideal applications or in conjunction with poor ducting?

A fan works best in environments for which it is designed. Fan models SP/CSP are designed to operate in low temperature, clean air applications. These fans work best with short duct runs and smaller models should use the preferred six-inch ductwork with minimal duct runs, avoiding significant use of elbows or transitions. The images from our IOM illustrate typical applications and optimal ducting configurations.

For best performance, choose a location with the shortest possible duct run and minimum number of elbows. Do not mount near cooking equipment. As shown in Figure 1.

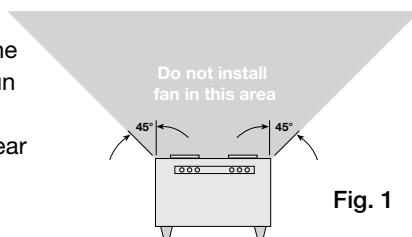


Fig. 1

Installation of ductwork is critical to the performance of the fan, shown in Fig. 5. Straight ductwork (1) or ductwork that turns in the same direction as the wheel (2) is recommended. Ductwork turning opposite the wheel direction (3) will cause turbulence and back pressure resulting in poor performance.

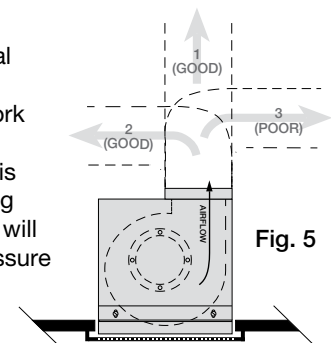


Fig. 5

11. What is a whole house ventilation system?

A whole house ventilation system refers to a mechanical system used to move air continuously through a house, condo or apartment at a low flow rate. Fan systems that qualify as a whole house ventilation system often have two speeds that allow the fan to run continuously at a low speed defined by the user. The fan also has the ability to increase speed when activated by a wall switch or integrated sensor. This configuration helps comply with the minimum ventilation standards of ASHRAE Standard 62.2 (2016).

You can determine ventilation rates for whole house ventilation by using a table like the one shown. For example, a continuous ventilation rate is based on the number of bedrooms and floor area in square feet. So, a house with three bedrooms and square footage between 1001 and 1500 require continuous airflow of 75 cfm or 150 cfm for 30 minutes of intermittent operation. This system is a cost-effective, yet simple solution for compliance with ASHRAE 62.2.

TABLE 4.1a (I-P) Ventilation Air Requirements, cfm

| Floor Area, ft ² | Bedrooms | | | | |
|-----------------------------|----------|-----|-----|-----|-----|
| | 1 | 2 | 3 | 4 | 5 |
| <500 | 30 | 38 | 45 | 53 | 60 |
| 501-1000 | 45 | 53 | 60 | 68 | 75 |
| 1001-1500 | 60 | 68 | 75 | 83 | 90 |
| 1501-2000 | 75 | 83 | 90 | 98 | 105 |
| 2001-2500 | 90 | 98 | 105 | 113 | 120 |
| 2501-3000 | 105 | 113 | 120 | 128 | 135 |
| 3001-3500 | 120 | 128 | 135 | 143 | 150 |
| 3501-4000 | 135 | 143 | 150 | 158 | 165 |
| 4001-4500 | 150 | 158 | 165 | 173 | 180 |
| 4501-5000 | 165 | 173 | 180 | 188 | 195 |

12. What certification does my SP fan with ceiling radiation damper maintain?

Our ceiling radiation damper, model CRD-310WT is compatible with SP-A fan sizes 50 – 190. The fan and ceiling radiation damper assembly is UL Listed for one-hour combustibles requirements. This configuration allows for compliance with 20 specific UL design numbers.

Models CRD-310L, CRD-320 and CRD-320L are ETL listed for one-hour combustibles requirements.

Note: A plaster flange is provided with each CRD and is required when the damper is installed in a combustible floor/ceiling assembly.

Please see our installation, [operation and maintenance manual for CRD dampers with SP fans](#) for full details.

13. My fan wheel is rubbing. What steps must I take to fix this?

Before energizing with line voltage, turn the fan wheel by hand. Assuming it does not move freely, check the wheel alignment on the shaft and adjust accordingly. Based on the fan size, the hub of the wheel(s) may have a setscrew or spring clip holding it to the shaft. Simply loosen this fastening method before adjusting the wheel and secure it after correcting the alignment. If the problem still exists after doing these fixes, please contact the customer care team at 800-333-8867.

14. What about plug type disconnects?

Models SP and CSP both use a plug-type disconnect as standard.

15. Do you test fans at the factory?

Yes. Both models SP and CSP are energized briefly before packaging to ensure proper wiring connections and operation.

16. Why can't I select a vibration isolation kit with my SP-AP or SP-VG?

These models use an integrated installation bracket that is not compatible with the isolators. These models use EC motors that often run quieter and more smoothly than some of our conventional motors. This bracket allows for easy install compared to more traditional fan mounting methods. Note: Greenheck does not offer spring isolators on models SP/CSP.

17. What differences are there between reverse acting and cooling thermostat accessories for my SP/CSP fan?

Both thermostats are similar in function and temperature range. The primary difference between the two is aesthetic. The appearance of a reverse acting thermostat is more industrial, and something you would find in a manufacturing setting. The cooling thermostat looks more like a typical thermostat found in a residential setting.

Reverse Acting (part #: 380044)

Adjustable for temperature ranges between 30F to 110F (-1C to 43C), 120v, 16 amp



Cooling Thermostat (part #: 386367)

When the temperature in the space rises above the set point of 50F to 90F (10C to 32C) the contacts close and the thermostat will signal the fan to come on in order to exhaust the air from the space. Includes face mounted thermometer that displays room temperature.



18. I cannot find the serial number on my SP-B-QD fan?

SP-B-QD models do not have a serial number. The Greenheck tag may contain a production order number that can also be used for reference.

19. My application requires a round duct connection on the outlet of the fan. What are my options based on the fan model?

The following chart provides you with the information you need by model and size:

| 6" Round Duct Connector and Reducer Offering | | | | |
|--|-------------------------|-------------|----------|---------------------------|
| Fan model/size | Description | Part Number | Standard | Available |
| SP-A50 - SP-A90 SP-A50-90-VG, SP-A90-130-VG | 6" round duct connector | 473388 | X | |
| SP-A110, SP-A125, SP-A190 | 6" round duct connector | 473388 | | X |
| SP-B50 - SP-B200 | 6" round duct connector | 474433 | X | |
| SP-A50 - SP-A190 SP-B50 - SP-B200 | 6" to 4" reducer | 473324 | | X (req. 6" connection) |

Please consult the customer care team (800-333-8867) for fan models/sizes not shown in the above chart.

20. What is the part number for my speed controller?

Our most common speed controller is part #: 385031. This is a 115v 6-amp solid state speed controller that is compatible with SP and CSP fan models with conventional motors up to size 900. Please consult CAPS for speed controller part number for different voltages or larger fan sizes.

21. Can my model SP/CSP accept 0-10 VDC for speed reference?

It depends on size. SP/CSP fans above 200 CFM selected with a Vari-Green motor can be ordered from the factory to accept 0-10 VDC. These models are also compatible with the full line of Vari-Green controls. Fans below 200 CFM with a Vari-Green or EC motor have integrated controls as standard to set flow, but are not capable of receiving 0-10 VDC.

22. Is a wall bypass sensor available?

The wall sensor bypass is an optional accessory available on select models having integral sensors. For example, if model selected accepts integral sensors and the wall sensor bypass is selected in addition to a humidity sensor, the fan wiring will have the provision to turn ON manually with a field-provided wall switch should no humidity event occur in the space.

23. Can I order replacement screw covers for my designer grille?

Our designer grille uses screw cover part #: 463246, available in iParts and the new parts.greenheck.com. Two screw covers are required per grille.

24. What about the part number for grilles and compatibility?

The part number for our designer grille is #459208. The grille has no light or sensor options. This grille uses screw cover part #: 463246 (two required per fan, available in iParts and soon at parts.greenheck.com). The grille is compatible with our SP-A series up to size A390, all SP-B sizes (50-200) and model SP-L50/80. Please see the “Accessories” section in CAPS® for more grille types and compatibility for each fan (screen shot below). Note: special conditions may apply if the grille style changed from original order.

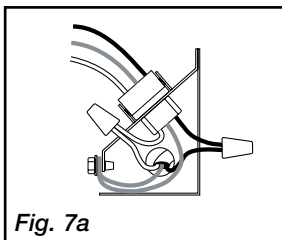
The screenshot shows a product catalog interface. On the left is a tree view of grille categories: Designer grille (plastic), Aluminum grille, Decorative grille (plastic), and Architectural grille. The main area displays a 3D rendering of a square plastic replacement grille (part #459208) against a blue background. To the right of the rendering is a list of part numbers: 455478, 459208, 880689, 880690, 504878, 504879, 877974, and 877973. Below the rendering are tabs for Description, Specifications, and Contact Info. The Description tab is active, showing the text: "Plastic Replacement Grille for: SP fans without lights, Sizes B50 - B200, Sizes A50 - A390".

25. How do I know if the unit I order from the Quick Delivery (QD) program uses a 115V motor?

SP and CSP fan models in the Quick Delivery (QD) program having the “QD” suffix at the end of the model name (i.e. SP-110-VG-QD) uses a 115V motor.

26. My fan was ordered as 115V. The application requires 277V. Must I replace the 115V motor?

Yes, the motor will need to be replaced. However, no additional standard components require replacement. Both 115V and 277V motors use a three-wire connection (hot, neutral and ground). Note—the need to replace the motor does not apply to select Vari-Green® motors having tri-voltage capability.



115 & 277 Volt
Black wire is “Hot”
White wire is “Neutral”
Green wire is “Ground”