

°STELPRO

Installation guide

Bathroom fan with heat lamp

Model: BFNHL



⚠ WARNING ⚠ VERY IMPORTANT ⚠ WARNING ⚠ VERY IMPORTANT ⚠ WARNING ⚠

Before installing and operating this product, the user and/or installer must read, understand and follow these instructions and keep them handy for future reference. If these instructions are not followed, the warranty will be considered null and void and the manufacturer deems no further responsibility for this product.

This product must be installed by a qualified person and connected by a certified electrician, according to the electrical and building codes effective in your region.

The following instructions must be adhered to in order to avoid personal injuries or property damages, serious injuries and potentially fatal electric shocks.

Switch off the power at the circuit breaker before installing, repairing and cleaning the unit.

Make sure the unit is appropriate for the intended use (if needed, refer to the product catalog or a representative).

If the installer or the user modifies the unit, he will be held responsible for any damage resulting from this modification.

This unit shall not be installed in wet locations such as, but not limited to, in a shower.

When cutting or drilling into a ceiling, do not damage electrical wiring and other hidden utilities.

To ensure proper air exhaust and to reduce the risk of fire, make sure all exhaust ducts lead outside. Do not exhaust air into walls, ceilings, attics, crawl spaces or garages.

Use a specially designed dimmer to control fan speed.

Sufficient air is needed for proper combustion and exhausting of gases to prevent back drafting.

For general ventilating use only. Do not use to exhaust hazardous or explosive materials and vapours.

BEFORE YOU BEGIN

Ductwork may have a direct impact on fan performance. Therefore, we are proposing the following recommendations.

Ducts

We highly recommend the use of rigid ducts. Flexible ducts increase air restriction, resulting in poor fan performance and increased noise levels (sones). If flexible ducts must be used, they should be stretched as much as possible to avoid sagging.

GOOD PERFORMANCE – PVC and galvanized steel ducts: these types of ducts greatly reduce static pressure* resulting in optimum airflow. The fan will not have to work as hard to ventilate, using less energy as a result. The noise levels will be at their lowest.

MEDIUM PERFORMANCE – Flexible aluminum ducts: an affordable option that ensures good fan performance. However, the ridges on these types of ducts restrict airflow, compromising performance levels.

POOR PERFORMANCE – Vinyl ducts: these types of ducts are low price, but have a lot of ridges. Moreover, their flexible construction restrict airflow, resulting in higher noise levels.

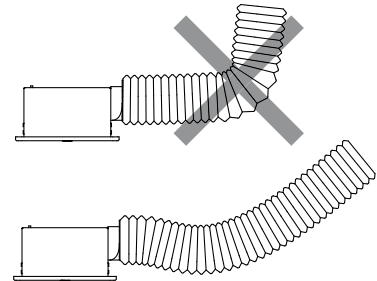
* Static pressure: airflow resistance that must be overcome by the fan to induce air movement.

Elbows

An ideal installation would have no elbow at all, but since most realistic applications require 1, 2 or even 3 elbows, we recommend the following instructions.

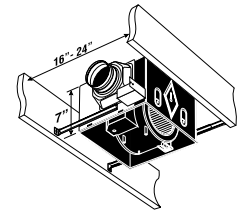
The first elbow must be installed at least 70 cm (27 1/2") from the fan and have a wide angle to facilitate airflow.

An elbow which is installed too close to the fan or has a sharp angle (90 degrees or less) could cause a backflow of air into the fan.



Required space

Fan installation requires a vertical clearance of at least 7 inches within ceiling. If the joists have a height of less than 7 inches, add filler in order to reach that height. Fan housing can be centered between two joists spaced up to 24 inches on center.



TWO INSTALLATION METHODS

A) INSTALLATION USING WOODEN HEADERS (NOT INCLUDED)

- Method used only on unfinished ceilings (see also alternate method B)
- Requires the installation of headers between ceiling joists.

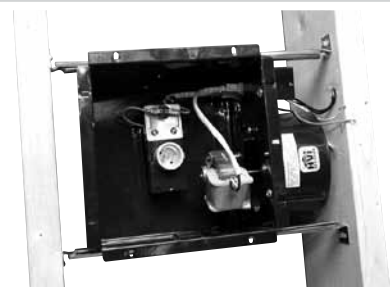
p. 3



B) INSTALLATION USING SLIDING BRACKETS

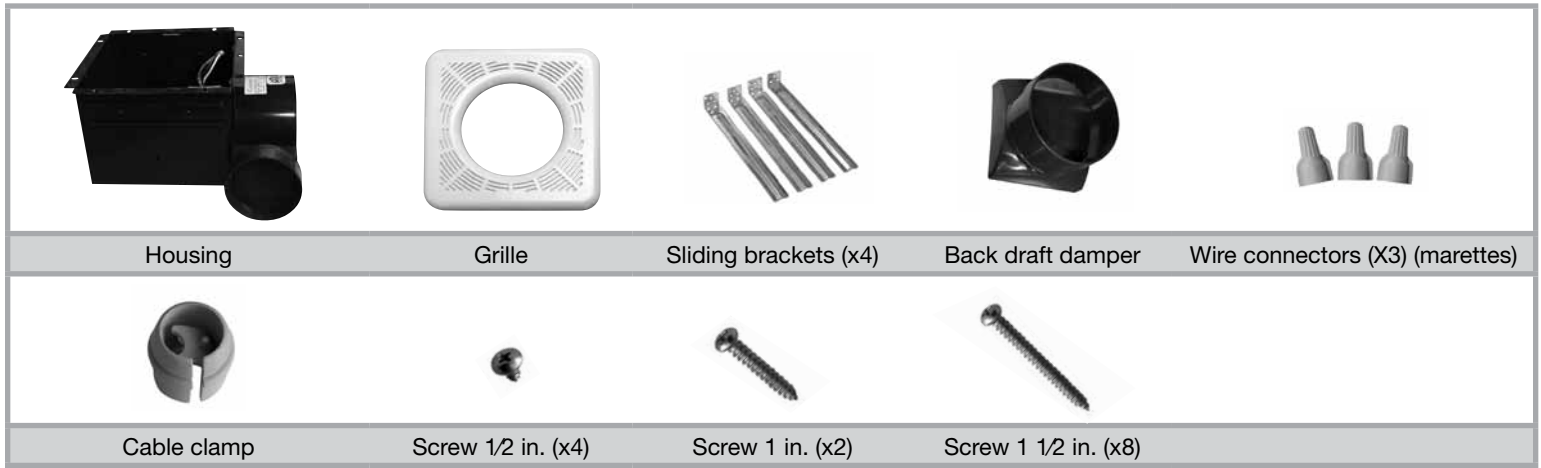
- Method used only on unfinished ceilings (see also alternate method A)

p. 6



Note: Some steps are easier to complete with the help of a co-worker. The fan can also be wall-mounted. However, this installation could impede the proper operation of the back draft damper and, therefore, the unit performance.

COMPONENTS



TOOLS



- Hand saw (installation method using headers)
- Measuring tape
- Phillips screwdriver
- Flat head screwdriver
- Robertson screwdriver
- Utility knife
- Drill (optional)

A) INSTALLATION USING WOODEN HEADERS

Note: When using this method, the housing flange will rest flush against the wood frame in the ceiling

1 PREPARATION

Before proceeding with the installation, plan ahead by taking into consideration the required clearances, ductwork and electrical wiring involved. Make sure it will not impact the existing wiring.

2 SPACING

Fan installation requires a vertical clearance of at least 7 inches within ceiling. If the joists have a height of less than 7 inches, add filler in order to reach that height. Fan housing can be centered between two joists spaced up to 24 inches on center.

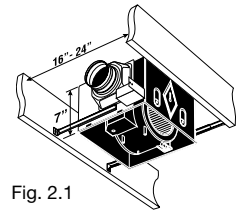


Fig. 2.1

3 BACK DRAFT DAMPER INSTALLATION

Secure the back draft damper (included) to the adaptor by inserting it in the appropriate slots. Make sure the flap opens upwards once the unit is ceiling-mounted



Fig. 3.1

4 WOOD FRAME

HEADER A – Header having a maximum thickness of 1 1/2" (e.g. 2" x 4"), placed horizontally between the ceiling joists and screwed at each side. Must be laid flat and rest flush with the joists to allow room above it for duct work and wiring. Length of this header is equal to the distance between the joists.

HEADER B – Length of this header must be equal to the distance between the ceiling joists. No specific thickness required.

N.B. If the joists have a height of less than 7 inches, add filler in order to reach that height.

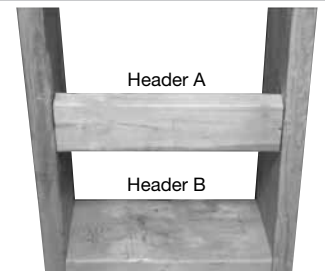


Fig. 4.1

5 POSITIONING AND SECURING THE FAN HOUSING

Slide the fan into place with the side of the housing set against **header B** and the right-hand ceiling joist.

Secure the housing to **header B** and the ceiling joist using four (4) screws. [1 1/2" screws]

Slide and secure **header A** between the two ceiling beams with the side of the header set against the fan housing.

Secure the housing to **header A** using two (2) screws. [1 1/2" screws]

N.B. You must screw in at an angle in order to ensure proper anchoring.

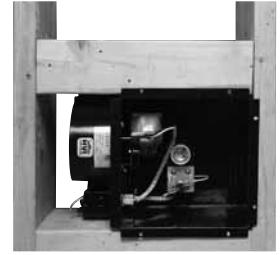


Fig. 5.1

6 ELECTRICAL WIRING

Your exhaust fan offers 2 wiring possibilities either using a standard wall switch (SPST) or a 2 position selector switch.

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WARNING

- A) Before installing, switch off the appropriate circuit breaker in the electrical service panel.**
 - B) Installation must comply with local and national electrical codes.**
 - C) Must be installed by a certified electrician.**
 - D) Unit must be properly grounded.**
- ////////////////////////////////////

STANDARD WALL SWITCH (SPST)

The standard wall switch enables you to control the fan and the heat lamp at the same time.

- 1- Unscrew and remove the wiring compartment cover and pry out one of the knock-outs. The cable clamp (included) must be inserted through the knock-out hole. (Fig. 6.1)
- 2- Using the cable clamp, run a cable from the wall switch (not included) into the fan wiring compartment
- 3- Using connectors, attach green wires coming from the fan and the heat lamp to the bare wire (ground) coming from the wall switch.
- 4- Using connectors, attach the fan and the heat lamp wires located inside the fan wiring compartment to the matching wires coming from the wall switch; black to black (hot); white to white (neutral). (Fig. 6.2)
- 5- Replace the wiring compartment cover and secure it.

DOUBLE SWITCH



A double switch (not included) allows independent control of the fan and the heat lamp.

For double switch wiring, please refer to the switch installation guide.

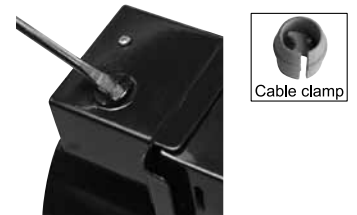


Fig. 6.1

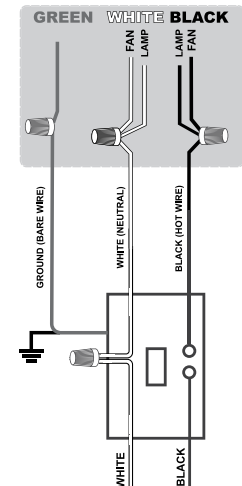


Fig. 6.2

7 CONNECTING THE DUCTWORK

Connect the duct to the adaptor and secure the junction with duct tape or a duct clamp (not included). Slant the duct away from the fan to avoid condensation running back into the fan housing. For attic installations, we recommend the use of insulated ducts to reduce condensation.

IMPORTANT

- Ductwork must comply with local building codes.
- Ductwork from the fan should always vent to the outdoors through either an exterior wall or roof.
- To maximize airflow, keep duct length and the use of elbows to a minimum.

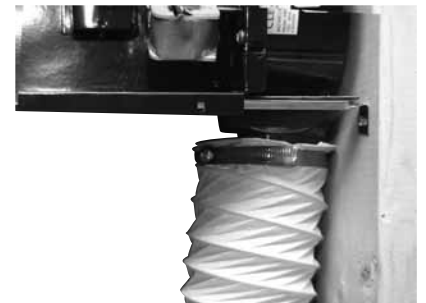


Fig. 7.1

8 FINISHED CEILING OPENING

The opening within the finished ceiling must reflect the shape and size of the fan housing. This is done to facilitate removal of the fan should repairs or replacement be necessary.

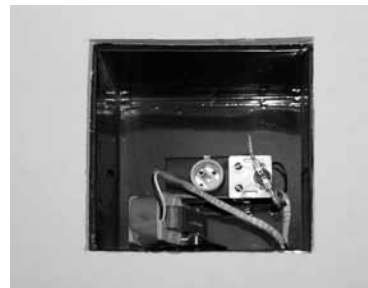


Fig. 8.1

9 GRILLE INSTALLATION

To install the grille, hook one of the two spring clips to its respective hook located in the fan housing.



Fig. 9.1

Hook the second spring clip with the opposite hook located on the opposite side of the fan housing.



Fig. 9.2

10 HEAT LAMP INSTALLATION

Screw a heat lamp (not included) into the appropriate socket.



Fig. 10.2

B) INSTALLATION USING SLIDING BRACKETS

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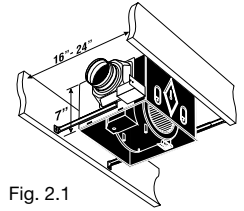


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Secure the back draft damper (included) to the adaptor by inserting it in the appropriate slots. Make sure the flap opens upwards once the unit is ceiling-mounted.



Fig. 3.1

4 ASSEMBLING THE FRONT BRACKETS

Slide two (2) brackets onto the railing located on the front side of the unit.



Fig. 4.1

5 ASSEMBLING THE REAR BRACKETS

Slide two (2) brackets onto the railing located at the back of the unit.



Fig. 5.1

6 SECURING THE FAN HOUSING

Fan housing centered between the ceiling joists (Fig. 6.1)

- Hold the fan housing centered between the ceiling joists. The housing flange must be level with the lower edges of the joists.
- Slide the rails outwards at both sides until they reach the adjacent joists. Use 1 1/2 inch screws to secure the sliding brackets to the joists

IMPORTANT

For brackets spanning wider than 18 inches, secure, using self-tapping screws (not included), the overlapping portion of the brackets to the fan housing. (Fig. 6.2)

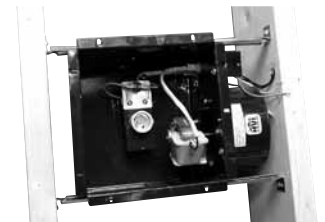


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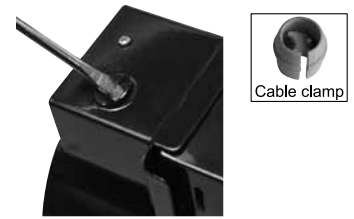


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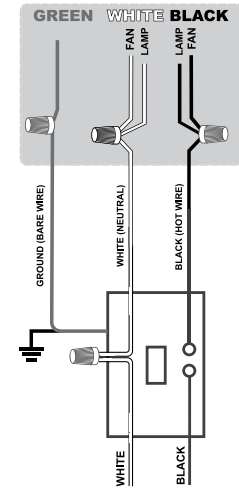


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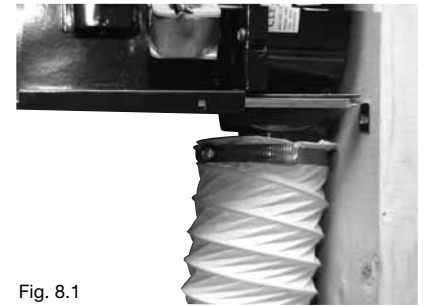


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Fig. 10.2

Screw a heat lamp (maximum 250W) (not included) into the appropriate socket.



Fig. 11.2

TROUBLESHOOTING

<i>Noisy fan</i>	<i>Fan not working</i>
<ul style="list-style-type: none"> • Check ductwork <ul style="list-style-type: none"> - Ensure that bents in ductwork are kept to a minimum. - Junction between the back draft damper and the duct must be airtight. - In the case of a flexible duct, ensure that it is not sagging. • Elbows angle must be greater than 90 degrees. • Ensure that the outside hood is not blocked. 	<ul style="list-style-type: none"> • Check for improper electrical wiring. • Check that circuit breaker is in the ON position

UL STANDARD 507 LISTED
 CSA LISTED ACCORDING TO STANDARD C22.2 NO 113
 ETL LISTED (3015005)



LIMITED WARRANTY

This product is guaranteed for a period of 1 year. If at any time during this period the unit becomes defective, it must be returned to its place of purchase with a copy of the invoice, or simply contact our customer service department (with a copy of the invoice in hand). The warranty is limited to the factory repair or the replacement of the unit, and does not cover the cost of disconnection, transport, installation, and component replacement. Any damages or failures caused by abuse, misuse, abnormal usage, faulty installation, or improper maintenance (other than that provided by Stelpro) will not be covered by this warranty. Stelpro Design disclaims any responsibility for bodily injuries, losses of income and material damages caused directly or indirectly by the product. Some States and provinces do not allow the exclusion or limitation of incidental or consequential damages and some States do not allow limitations on how long an implied warranty lasts, so these exclusions or limitations may not apply to you. This warranty gives you specific legal rights and you may have other rights which vary from State to State and province to province.