



Installation guide

Bathroom fan

Series: ULTRA QUIET

Models: SQBF070 - SQBF090 - SQBF110



⚠ 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.

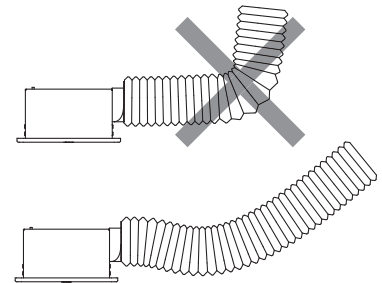
*Static pressure: airflow resistance that must be overcome by the fan to induce air movement.

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.

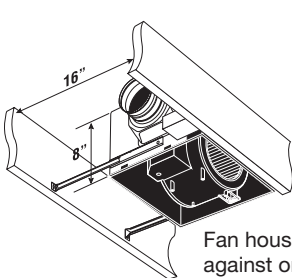
The first elbow must be installed at least 70 cm (27 1/2") from the fan and have a wide angle to facilitate airflow.

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.

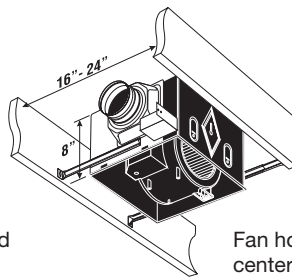


REQUIRED SPACE

Fan installations require a vertical clearance within the ceiling of at least 8 inches. Fan housing can be secured either to the side of a ceiling joist or centered between two joists spaced up to 24 inches on center.



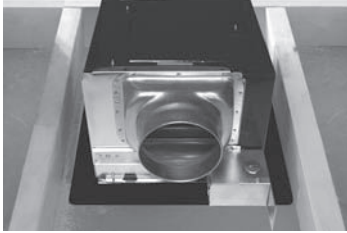


Fan housing located against one of the joists













Fan housing centered between the ceiling joists

3 INSTALLATION METHODS


<p>A) INSTALLATION USING WOODEN HEADERS (not included)</p> <ul style="list-style-type: none"> • Method used only on unfinished ceilings (see also alternate method B). • Requires the installation of headers between ceiling joists. <p>p. 4</p>	
<p>B) INSTALLATION USING SLIDING BRACKETS (included)</p> <ul style="list-style-type: none"> • Method used only on unfinished ceilings (see also alternate method A). <p>p. 6</p>	
<p>C) INSTALLATION IN FINISHED CEILINGS USING A MOUNTING BRACKET (included)</p> <ul style="list-style-type: none"> • Method used on a finished ceiling or when replacing an existing fan. Access to the attic not required. <p>p. 8</p>	

N.B. 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

				
Adaptor and wiring compartment	Housing	Mounting bracket	Grill	Sliding brackets (x3)
				
Cable clamp	Screw 1/2 po (x4)	Screw 1 po (x2)	Screw 1 1/2 po (x8)	Wire connectors (X3) (marettes)

TOOLS

	<ul style="list-style-type: none"> • Hand saw (installation method using headers) • Measuring tape • Phillips screwdriver • Flat head screwdriver • Robertson screwdriver • Utility knife • Drill (optional)
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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 WOOD FRAME

Build a wood frame by adding headers to the existing ceiling joists in order to accommodate the fan housing.

HEADER A – Header having a maximum thickness of 1 1/2" (e.g. 2x4), placed horizontally between the ceiling joists and nailed 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 – Secured between headers A & C, this header must be spaced **9 1/2"** from left ceiling joist (see diagram). To facilitate ductwork and wiring, this header should be approximately **20 inches long**.

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

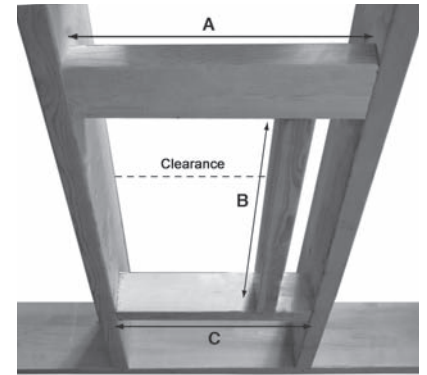


Fig. 2.1

3 ELECTRICAL WIRING



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.**



- 1- Remove wiring compartment cover and pry out one of the knock-outs. The cable clamp (included) must be inserted through the knock-out hole. (Fig. 3.1)
- 2- Using the cable clamp, run a cable from the wall switch (not included) into the fan wiring compartment.
- 3- Using connectors, attach the green wire coming from the fan to the bare wire (ground) coming from the wall switch.
- 4- Using connectors, attach the fan 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. 3.2)
- 5- Replace wiring compartment cover.

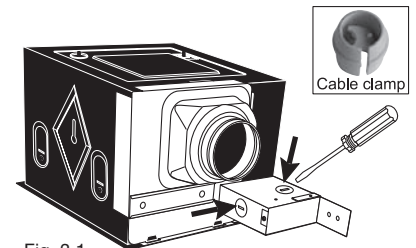


Fig. 3.1

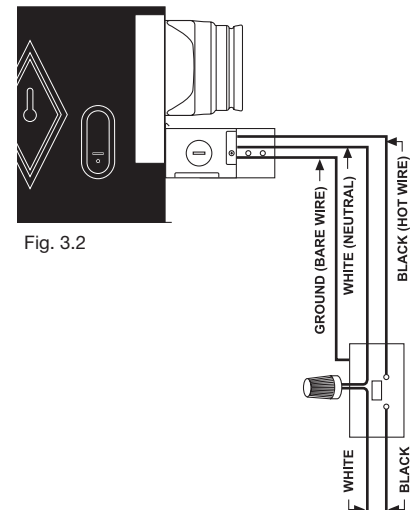


Fig. 3.2

4 POSITIONING THE FAN HOUSING

Slide the fan housing into place so that its side is **set against header C** (Fig. 4.1). Positioning of the housing must allow sufficient room for wiring and duct work.

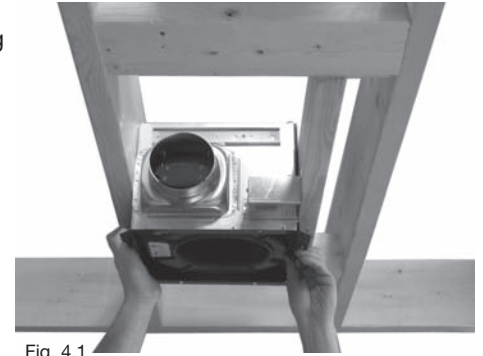


Fig. 4.1

5 SECURING THE FAN HOUSING

Secure the housing to the adjacent ceiling joist and header using 6 x 1 1/2 inch screws.

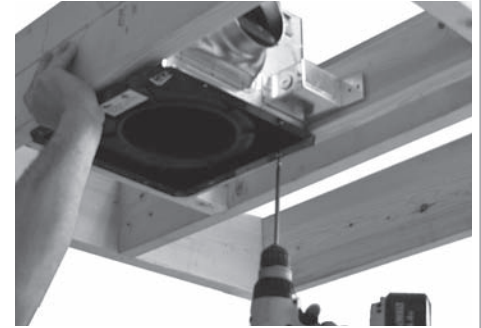


Fig. 5.1

6 CONNECTING THE DUCTWORK

Connect the duct to the adaptor and secure the junction with duct tape or a duct clamp. 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. 6.1

7 FINISHED CEILING OPENING

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

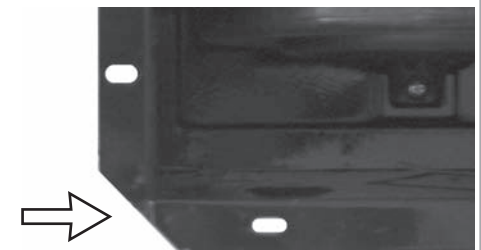


Fig. 7.1

8 GRILL INSTALLATION

Squeeze the 2 mounting springs and slide them into the two slots located on opposite sides of the fan housing.



Fig. 8.1

Push the grill against the ceiling.



Fig. 8.2

B) INSTALLATION USING SLIDING BRACKETS

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

Where joist spacing is between 16 inch on center to 24 inch on center, the fan housing must be centered between the joists.

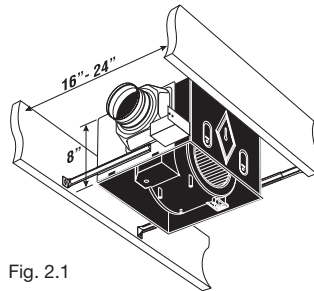


Fig. 2.1

For installation using sliding brackets (included) and where joist spacing is 16 inches on center, the fan housing can be either secured to the side of a ceiling joist or can be centered between the joists.

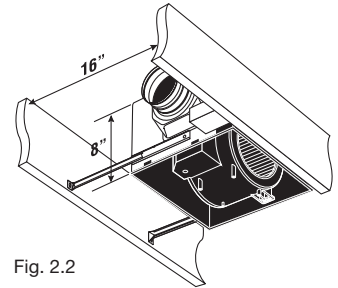


Fig. 2.2

3 ASSEMBLING THE BRACKET ONTO THE ADAPTOR

Slide the short bracket onto the railing located on the adaptor (under the duct).

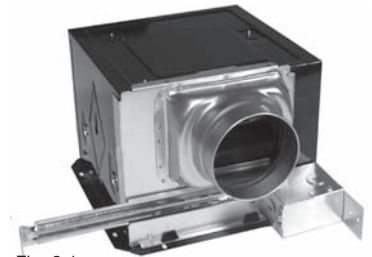


Fig. 3.1

4 ASSEMBLING THE BRACKETS ONTO THE HOUSING (OPPOSITE END TO THE ADAPTOR)

Slide 2 brackets onto the railing located on the fan housing, with the extremities of the brackets overlapping each other.



Fig. 4.1

5 SECURING THE FAN HOUSING

Fan housing located against one of the joists

- If joists are less than 8 inch height, add furring strips to achieve the installation height requirement (8 inches). (Fig. 5.1)
- Using 1 1/2 inch screws (included), secure housing flange flush with the lower edge of the joist.
- Slide the rails outwards to reach the 2 adjacent joists. Use 1 1/2 inch screws to secure the sliding brackets to the joists.

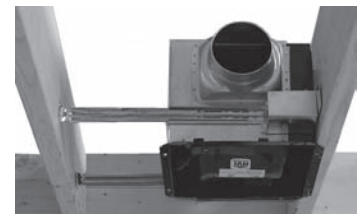


Fig. 5.1

OR

Fan housing centered between the ceiling joists (Fig. 5.2)

- If joists are less than 8 inch height, add furring strips to achieve the installation height requirement (8 inches).
- 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

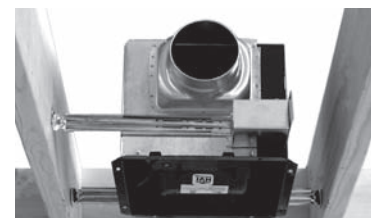


Fig. 5.2

IMPORTANT

For brackets spanning wider than 18 1/4 inches, secure the overlapping portion of the brackets to the fan housing, using 1/2 inch screws. (Fig. 5.3)

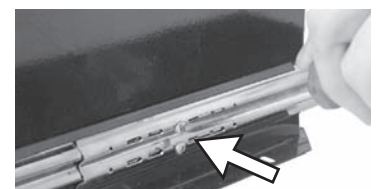


Fig. 5.3

6 ELECTRICAL WIRING

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.

- 1- Remove 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 the green wire coming from the fan to the bare wire (ground) coming from the wall switch.
- 4- Using connectors, attach the fan 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 wiring compartment cover.

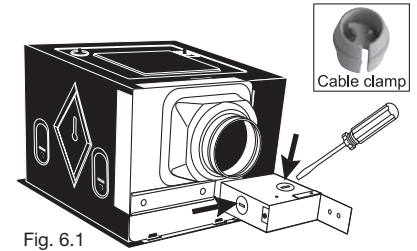


Fig. 6.1

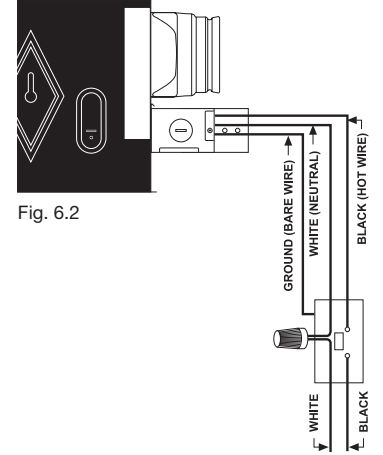


Fig. 6.2

7 CONNECTING THE DUCT WORK

Connect the duct to the adaptor and secure the junction with duct tape and a duct clamp. 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.

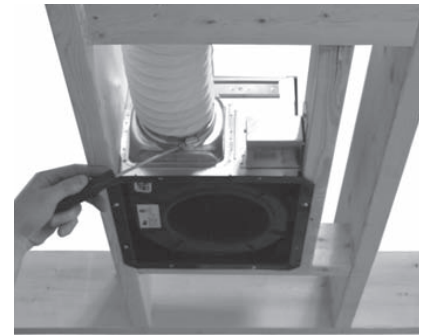


Fig. 7.1

8 FINISHED CEILING OPENING

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

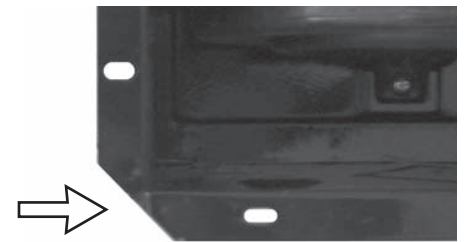


Fig. 8.1

9 INSTALLATION DE LA GRILLE

Squeeze the 2 mounting springs and slide them into the two slots located on opposite sides of the fan housing.



Fig. 9.1

Push the grill against the ceiling.



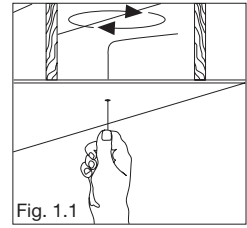
Fig. 9.2

C) INSTALLATION USING A MOUNTING BRACKET

1 SEARCHING FOR SPACE BETWEEN CEILING JOISTS

Use an electronic stud/joist locator to determine the exact location of the ceiling joists. Otherwise, drill a small hole in the ceiling and poke a bent coat hanger through the hole to feel where the joists are located.

N.B. If joists are less than 8 inch height, add furring strips to achieve the installation height requirement.



2 CUT-OUT SHAPE

Note – This step is easier to complete with the help of a co-worker.

Using the mounting bracket as a template, take a pencil to trace the shape of the cut-out.

- Side C of the mounting bracket must be facing the ductwork (see step 5).
- Trace along the inner edges of the template to achieve the proper cut-out dimensions.
- Pencil-in the position of the 9 pre-drilled screw holes.



3 CUT ALONG CUT-OUT LINES

Cut inside the lines which were traced.



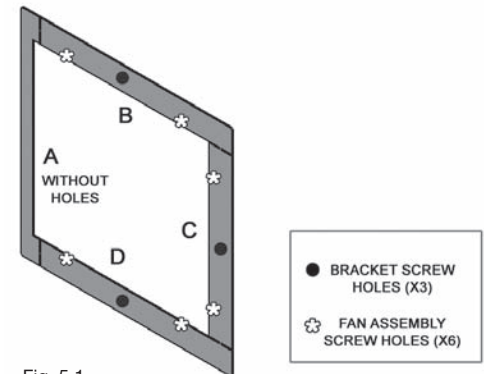
4 CLEANING OF THE INSTALLATION ZONE

Before installing the mounting bracket, prepare the surface by dusting off any excess debris from the ceiling opening.



5 INSTALLATION OF THE MOUNTING BRACKET

Important – Side C of the mounting bracket must be facing the ductwork.

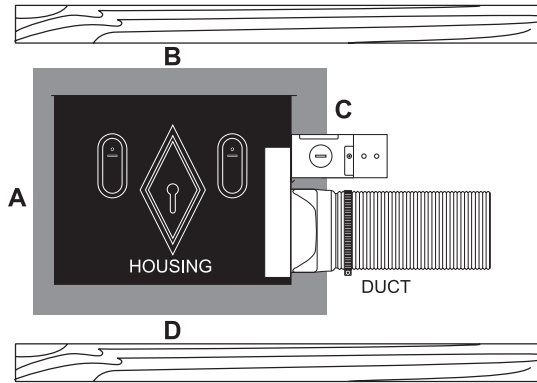


5 INSTALLATION OF THE MOUNTING BRACKET (continued)

Fan housing centered between the ceiling joists

- If there is no sufficient room to insert the bracket through the cut-out, then break off side A of the bracket (break along the fold lines where side A borders side B and D). (Fig. 5.2 & 5.3)
- The mounting bracket installs within the ceiling, affixing to the top side of the ceiling. Place the bracing with the tapered ends of the screw holes facing down (**protruding ends facing up**). (Fig. 5.4)
- Secure the mounting bracket to the ceiling by screwing 3 screws through the corresponding pencil marks on the bottom side of the finished ceiling (Fig. 5.5). Avoid countersinking the screws below the surface of the finished ceiling. (Fig. 5.6)

Attic view – fan housing centered between the ceiling joist



OR

Fan housing located against one of the joists

- Always break-off side A of the mounting bracket (break along the fold lines where side A borders side B and D) prior to inserting it through the ceiling cut-out (Fig. 5.1 and 5.2)
- The mounting bracket installs within the ceiling, affixing to the top side of the ceiling. Place the bracket with the tapered ends of the screw holes facing down (**protruding ends facing up**). (Fig. 5.4)
- Secure the mounting bracket to the ceiling by screwing 2 screws through the corresponding pencil marks on the bottom side of the finished ceiling (Fig. 5.5). The screws will penetrate the ceiling and then the bracket. Avoid countersinking the screws below the surface of the finished ceiling. (Fig. 5.6)

Attic view – fan housing located against one of the joists.

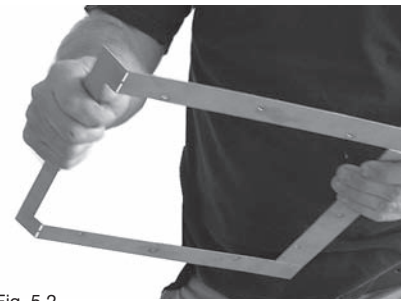
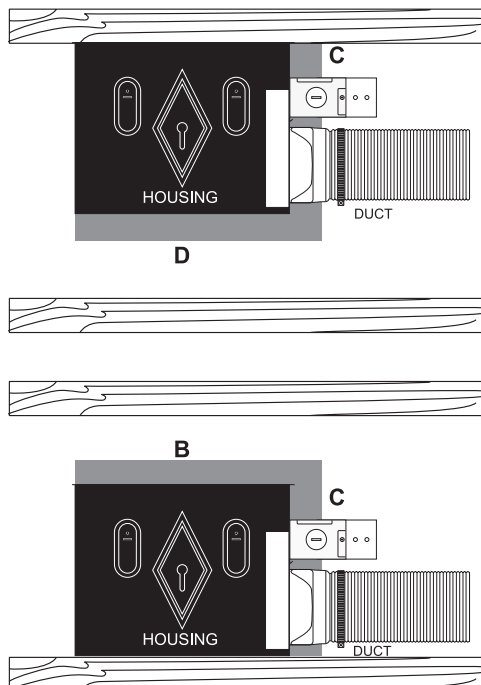


Fig. 5.2

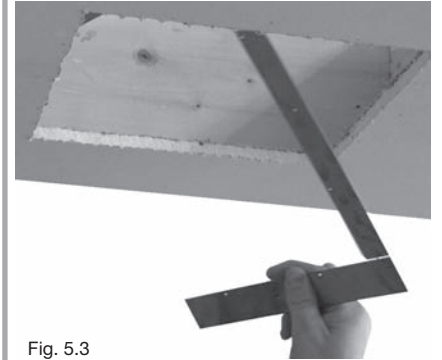


Fig. 5.3

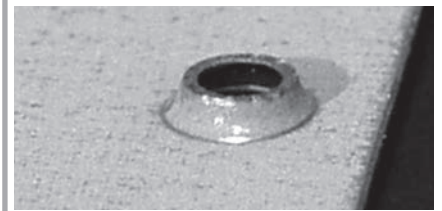


Fig. 5.4

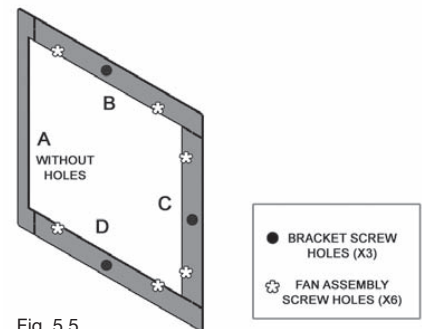


Fig. 5.5

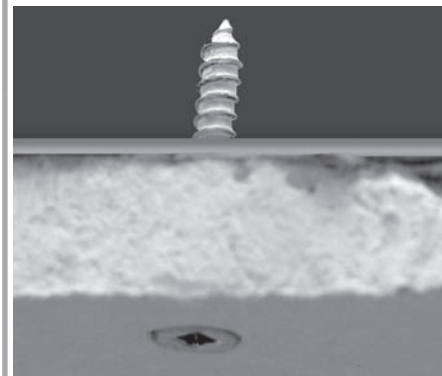


Fig. 5.6

6 ADAPTOR REMOVAL

Since the complete assembly (housing and adaptor) cannot fit through the cut-out opening, you will need to remove the adaptor from the housing as follows.

Disconnect electrical plug from the receptacle.

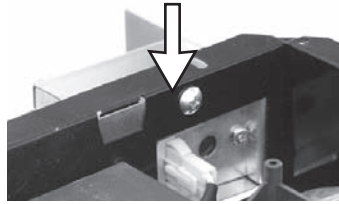


Fig. 6.1

Remove and keep the 2 screws securing the adaptor to the housing. You will need them later on.

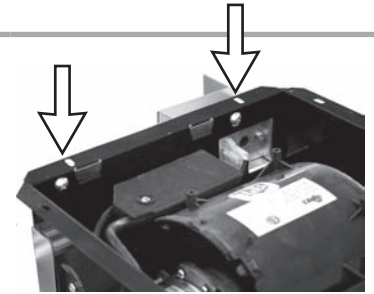


Fig. 6.2

7 ELECTRICAL WIRING

WARNING

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- B) Installation must comply with local and national electrical codes.
- C) Must be installed by a certified electrician.
- D) Unit must be properly grounded.

1- Remove wiring compartment cover and pry out one of the knock-outs. The cable clamp (included) must be inserted through the knock-out hole. (Fig. 7.1)

2- Using the cable clamp, run a cable from the wall switch (not included) into the fan wiring compartment.

3- Using connectors, attach the green wire coming from the fan to the bare wire (ground) coming from the wall switch.

4- Using connectors, attach the fan 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. 7.2)

5- Replace wiring compartment cover.

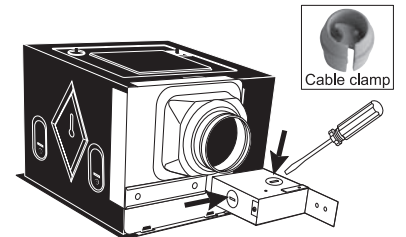


Fig. 7.1

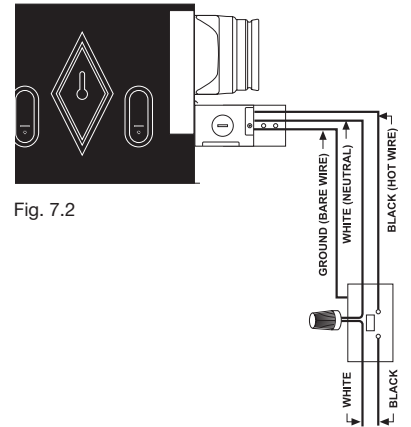


Fig. 7.2

8 CONNECTING THE DUCT WORK

Connect the duct to the adaptor and secure the junction with duct tape and a duct clamp. 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. 8.1

9 ADAPTOR INSTALLATION

Position the adaptor through the cut-out opening with its flange resting against the finished ceiling. (Fig. 9.1 & 9.2)

Secure the adaptor to the ceiling by screwing 2 screws through the screw holes on the adaptor flange.

With the adaptor secured to the ceiling, tilt it inward at a 25 degree angle. This angle will facilitate the snap-on of the housing onto the adaptor. (Fig. 9.3)

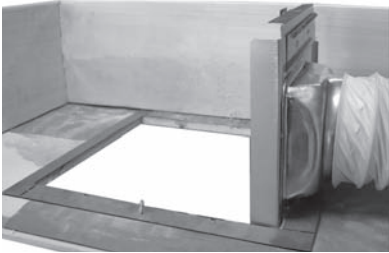


Fig. 9.1

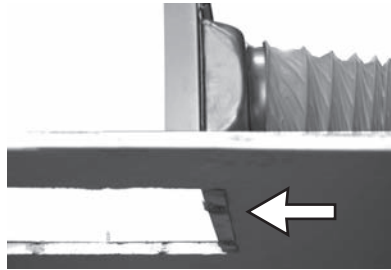


Fig. 9.2



Fig. 9.3

10 HOUSING INSTALLATION

Slide the fan housing straight up through the cut-out opening. (Fig. 10.1 & 10.2)

The 2 metal tabs located at the base of the adaptor must clip into the matching slots on the fan housing. (Fig. 10.3)



Fig. 10.1

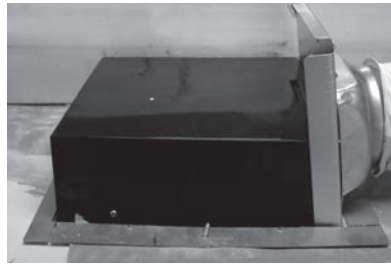


Fig. 10.2

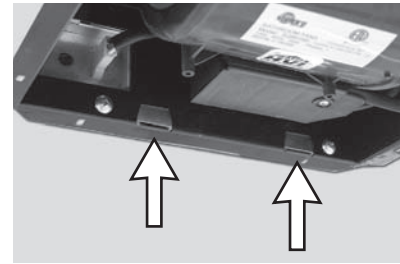


Fig. 10.3

11 SECURING THE HOUSING

Secure the housing to the ceiling by screwing 4 x 1 1/2 inch screws through the screw holes on the housing flange.

Important - screw carefully to avoid damaging the ceiling covering

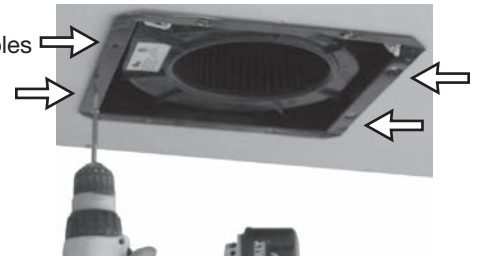


Fig. 11.1

12 ADAPTOR RECONNECTION

Secure the housing to the adaptor by using the 2 screws previously removed during step 6.

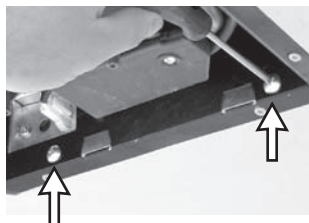


Fig. 12.1

Re-insert the white plug into the receptacle.

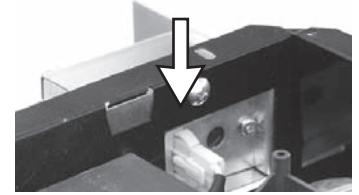


Fig. 12.2

13 GRILL INSTALLATION

Squeeze the 2 mounting springs and slide them into the two slots located on opposite sides of the fan housing.



Fig. 13.1

Push the grill against the ceiling.



Fig. 13.2

TROUBLESHOOTING

Noisy fan

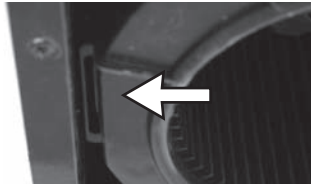
- Check ductwork
 - Ensure that bends in the ductwork are kept to a minimum.
 - Junction between the adaptor and the duct must be airtight.
 - In the case of a flexible duct, ensure that it is not sagging.
- Elbow angles must be greater than 90 degrees.
- Ensure that the outside hood is not blocked.

Fan not working

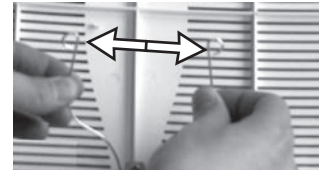
- Check for improper electrical wiring.
- Check that circuit breaker is in the ON position.

Mounting springs do not hold the grill firmly in place

Make sure the mounting springs were inserted into their respective slots.



If the mounting springs are inserted into their respective slots and the grill does not hold firmly in place, then increase their tension by bending the 2 legs of each spring outward.



UL STANDARD 507 LISTED

CSA LISTED ACCORDING TO STANDARD C22.2 NO 113



LIMITED WARRANTY

This product is guaranteed for a period of 5 years. 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.