BATHOLOGY

rediscover bathing

Atmospheric 330

In-Shower Ventilation
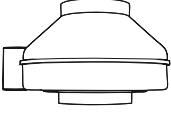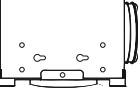
Installation and Operation Manual

Atmospheric 330

by B A T H O L O G Y

Components

		Spec Page	Install Page

Fan Kit

Fan

A

1x 190 CFM Exhaust Fan, 6"

4x 1" Screws

1x Mounting Bracket

4x 7/16" Screws

| 6 | 6 - 8 |

Expansion Vent

B

1x Expansion Vent Housing, 6" duct

4x Hanger Bars

1x Expansion Vent Grille

4x 1" Screws

2x 3/8" Short Screws

| 9 | 9 - 10 |

Electronic Time Control

C

1x Electronic Time Control

1x Timer Face (White) (Pre-installed)

2x Mounting Screws

1x Timer Face (Ivory)

1x Timer Face (Almond)

| 11 | 11 - 13 |

Damper

E

1x Damper, 6"

3x Damper Screws

| 14 | 14 |

Duct

H

1x Flex Duct, 6"x25'

| 16 | 16 - 17 |
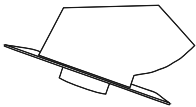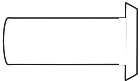
Mastic and Duct Ties

I

1x Mastic Tube Net Contents: 1/12 Gallon

8x Flex Duct Tie, 18"

| 16 | 16 - 17 |

    by BATHOLOGY

Components Continued

Optional

Slide Speed Control					
D	1x Slide Speed Control	2x Mounting Screws 3x Wire Nuts		11	11 - 13

Vent Options

Roof Cap				
F	1x Roof Cap, 6"		15	15

Wall Vent				
G	1x Wall Vent, 6"		15	15

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Typical Installation - Exterior Roof

Important: It is recommended that all electrical equipment be tested prior to installation.

Page	ID	Product
6 - 8	A	Fan
9 - 10	B	Expansion Vent
11 - 13	C	Electronic Timer Control
11 - 13	D	Speed Slide Control
14	E	Damper
15	F	Roof Cap
16 - 17	H	Duct
16 - 17	I	Mastic and Ties

Exterior Roof

Accessible Area

Bath Area

Power Source

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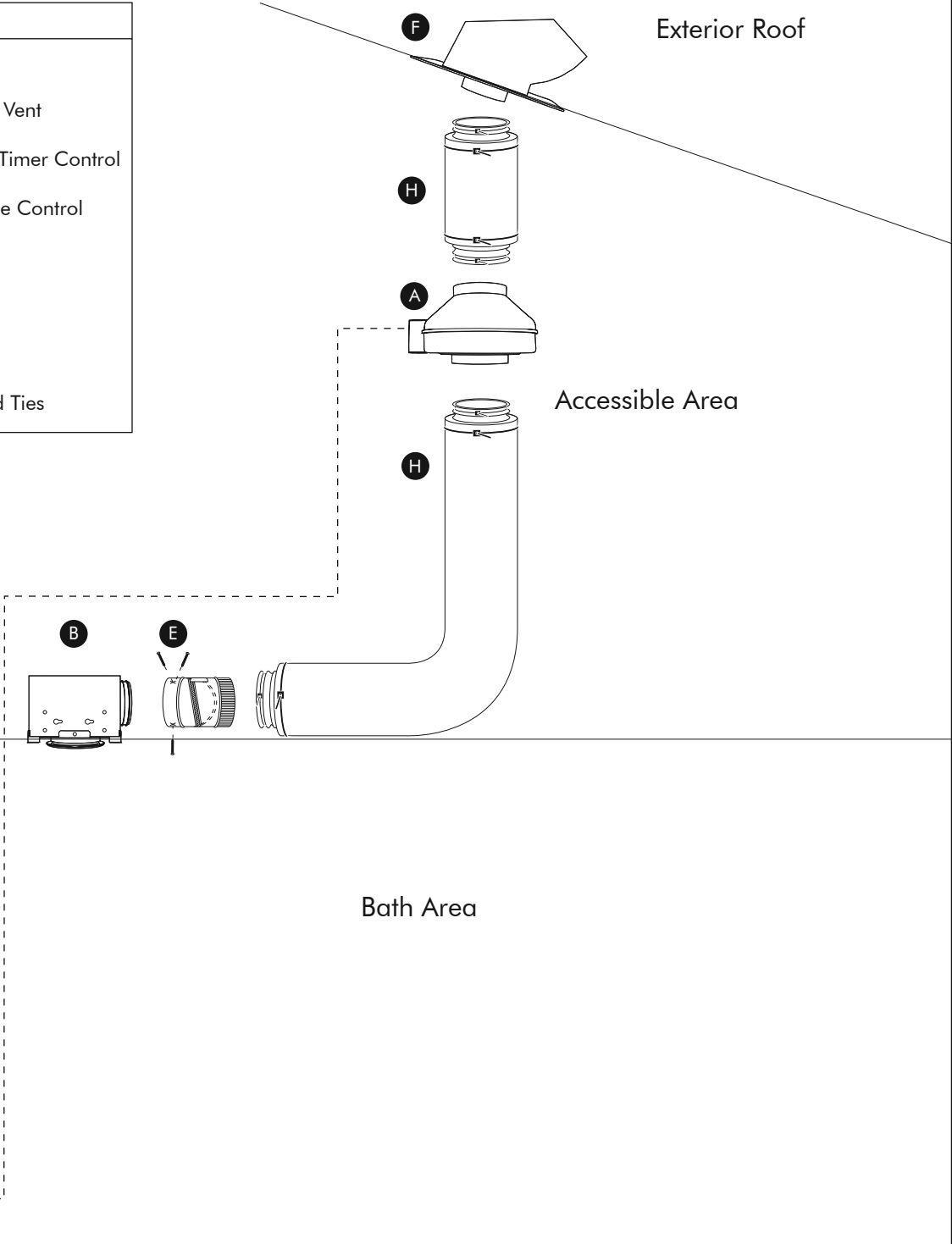
Typical Installation - Exterior Wall

Important: It is recommended that all electrical equipment be tested prior to installation.

Page	ID	Product
6 - 8	A	Fan
9 - 10	B	Expansion Vent
11 - 13	C	Electronic Timer Control
11 - 13	D	Speed Slide Control
14	E	Damper
15	G	Wall Vent
16 - 17	H	Duct
16 - 17	I	Mastic and Ties

Exterior Wall

Accessible Area

Bath Area

Power Source

Atmospheric 330   by BATHOLOGY
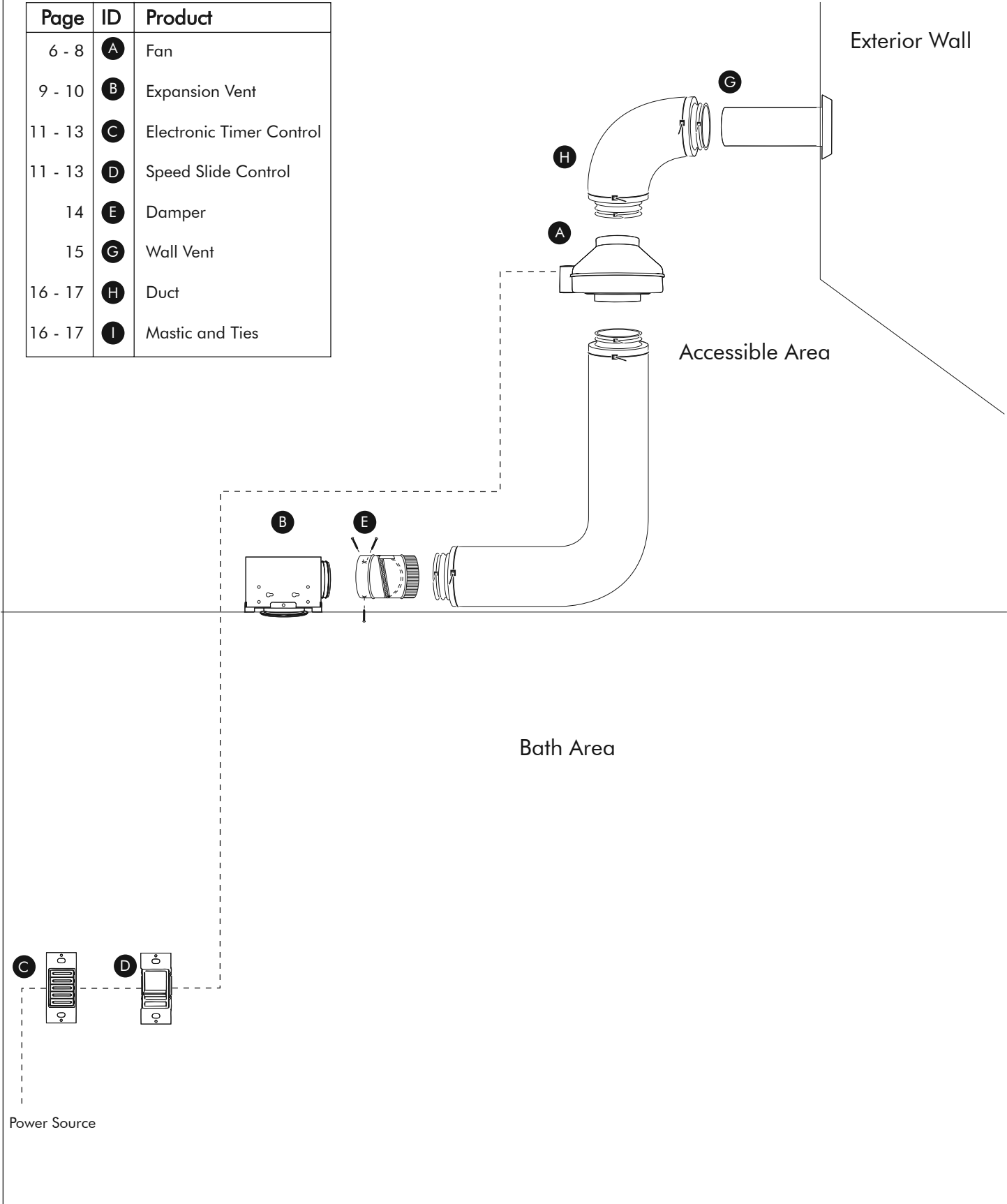
Fan Specifications and Installation

Specifications

190 CFM Fan   ①

Operating Voltage: 120VAC
Power Consumption: 60W
Nominal Amperage: 0.52 Amps
CFM: 190 @ .20" W.G.
Lubrication: Permanently Lubricated Sealed Ball Bearings
Protection: Automatic Reset Thermal Overload Protection
Speed Control: 100% Speed Controllable
Testing: U.L. Listed; CSA Certified
Airstream Tolerance: Suitable for Airstream Temperatures up to 140°F
Dimensions: 11-3/8" Diameter x 8" Length

Mounting Bracket ②
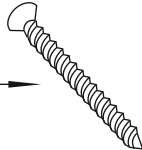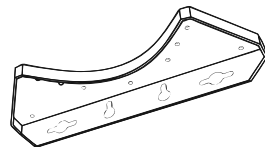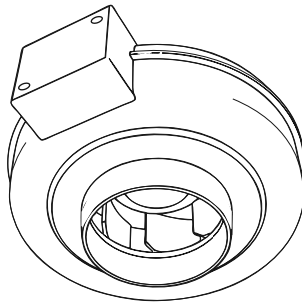
1" Screws ③

7/16" Screws ④

Installation

Stud / Ceiling Joist

③ 1" Screw

② Mounting Bracket

Use exterior slots for horizontal installation

Figure 1

Stud / Ceiling Joist

A

190 CFM Fan ①

④ 7/16" Screw
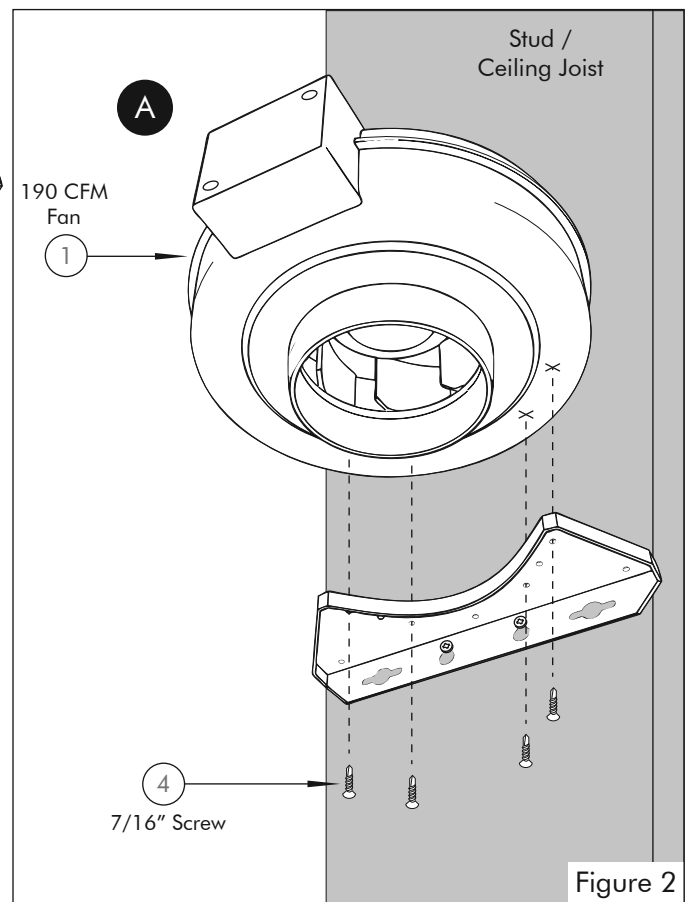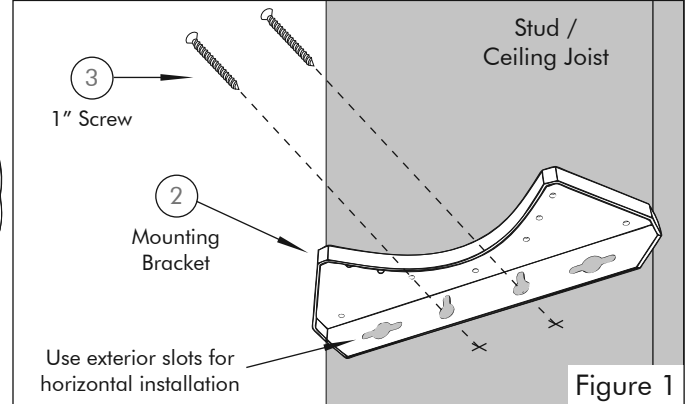
Figure 2

Warning: Do not press mounting bracket (2) to duct intake of fan (1). Examine figure closely.

Mounting Bracket spaced correctly from duct intake

Mount fan to mounting bracket through slots "I" and "III" of each side

Figure 3
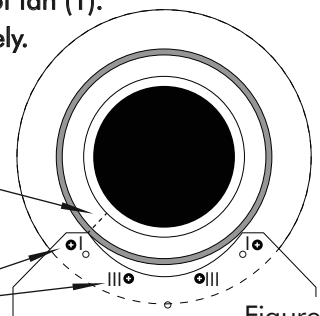
Fan Installation

Installation Considerations

- **Warning:** For your safety, read and understand instructions completely before starting. Before wiring to power supply, turn off electricity at the fuse or circuit breaker box. Make sure electrical service to fan is locked in "OFF" position.

- **Note:** Prior to installation, consider the placement of the 190 CFM Fan carefully, taking into account the location of electrical, plumbing, and other fixtures.

- **Note:** All units are suitable for use with solid-state speed controls

- **Note:** This unit has rotating parts and safety precautions should be exercised during installation, operation and maintenance.

- **Caution:** For general ventilation use only. Do not use to exhaust hazardous or explosive materials and vapors.

- **Note:** All wiring must be done in accordance with National Electrical Code and local building code.

- **Note:** The combustion air-flow needed for safe operation of fuel burning equipment may be affected by this unit's operation. Follow the heating equipment manufacturer's guidelines and safety standards such as those published by the National Fire Protection Association (NFPA), the American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE).

- **Note:** Exhaust fans must always be vented to the outdoors.

- **Note:** Acceptable for use over a bathtub or shower.

- **Warning:** NEVER place a switch where it can be reached from a tub or shower.

- **Warning:** For installation over a tub or shower, power source must be externally switched GFCI circuit and must be installed in accordance with local and building codes.

- **Warning:** Check voltage at the fan to see if it corresponds to the motor nameplate.

- **Warning:** Guards must be installed when fan is within reach of personnel or within seven (7) feet of working level or when deemed advisable for safety.

CAUTION For safety purposes, use safety goggles at all times.

⚠WARNING Before wiring to power supply, turn off electricity at the fuse or circuit breaker box.

⚠WARNING Check for piping/electrical before cutting or drilling.

⚠WARNING If there is any risk of uninsulated electrical connections in your wall/ceiling area, use insulating gloves.

Important: It is recommended that all electrical equipment be tested prior to installation.

Installation

1. When selecting fan (1) mounting location, the following criteria should be considered: a) mounting to minimize noise generated by fan operation; b) service accessibility.

a) Mounting to minimize noise generated by fan operation: Mounting the fan (1) as far as possible from the intake point will minimize fan operating noise from being transmitted back through the duct work. Insulated flexible type duct work (recommended for all bathroom exhaust applications) will result in much quieter operation. It is recommended that a minimum 8' of insulated flexible ducting be used between any expansion vent and fan (1) for low noise level.

b) Service accessibility: Fan (1) location should allow sufficient access for service.

Fan Installation

2. Using the 1" wood screws (3) provided, attach the fan mounting bracket (2) to a support beam at the selected location (see figure 1 on page 6). **Note:** Fan (1) mounting can be at any point along the duct and in any angle; however, vertical mounting is recommended to reduce condensation buildup in the fan (1). If a horizontal installation is necessary and condensation buildup may pose a problem, wrap insulation around the fan (1).

3. Attach fan (1) to the mounting bracket (2) with the four 7/16" sheet metal screws (4) provided, making sure the wiring box is positioned for easy access (see figure 2 and 3 on page 6). **Note:** Screws are self tapping and do not require pilot holes. **Warning: Do not press mounting bracket (2) to duct intake of fan (1). Examine figure closely.**

Wiring the Fan

4. Remove the screws securing the terminal box cover plate located on the side of the fan (1) (see figure 3). All fan motor connections are pre-wired to an electrical terminal strip. A 3/8" romex type cable restraint connector will be needed to secure the wiring through the knockout provided on the side of the terminal box.

5. Bring incoming electrical service through the romex connector and the fan knockout. Be sure to place the connector nut over the wiring coming into the terminal box. There are two open ports on the terminal strip. Using a small regular screwdriver, tighten the neutral (white) wire of the incoming supply under the open terminal strip port labeled "N". Tighten the line (black) wire of the incoming supply under the open terminal strip port labeled "L". Since the fan motor is isolated within a plastic housing, grounding is not necessary (see figure 4).

6. Secure the romex connector. Secure the incoming supply with the romex connector. Replace the fan terminal box cover. All fan motor and capacitor connections have been pre-wired from the factory. No additional fan wiring is necessary.
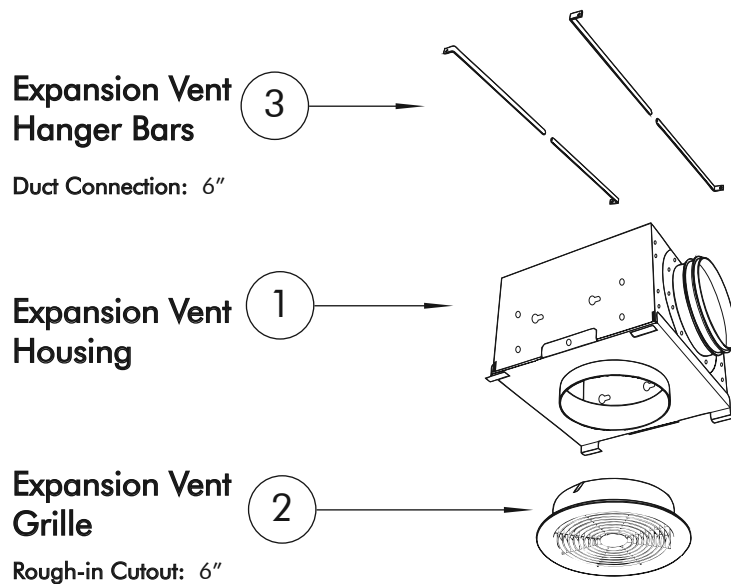

Screws

Figure 3

Supply Voltage

(Electronic Time Control / Slide Speed Control)

Ground — Green/Yellow
White (N) — Blue
Black (L) — Black
— Brown

Capacitor

Figure 4

Housing Specifications and Installation

Specifications

Expansion Vent Hanger Bars ③

Duct Connection: 6"

Expansion Vent Housing ①

Expansion Vent Grille ②

Rough-in Cutout: 6"

Installation Considerations

- **Warning:** For your safety, read and understand instructions completely before starting.

- **Note:** Prior to installation, consider the placement of the Expansion Vent carefully, taking into account the location of electrical, plumbing, and other fixtures.

- **Note:** The combustion air-flow needed for safe operation of fuel burning equipment may be affected by this unit's operation. Follow the heating equipment manufacturer's guidelines and safety standards such as those published by the National Fire Protection Association (NFPA), the American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE).

- **Note:** Exhaust fans must always be vented to the outdoors.

CAUTION For safety purposes, use safety goggles at all times.

⚠WARNING Check for piping/electrical before cutting or drilling.

⚠WARNING If there is any risk of uninsulated electrical connections in your wall/ceiling area, use insulating gloves.

Installation

Mounting Directly to Joist   B

Expansion Vent Housing ①

Position Locator Tabs flush with bottom edge of joist

Screws

Figure 1

Mounting Brackets to Joist   B

Expansion Vent Housing ①

Expansion Vent Hanger Bars ③

Secure front and back hangar bars with 3/8" screws

15/32" from bottom edge of joist.

Figure 2

Expansion Vent Housing ①

6" Cutout

Ceiling Material

② Expansion Vent Grille

Figure 3

A t m o s p h e r i c 330   by B A T H O L O G Y
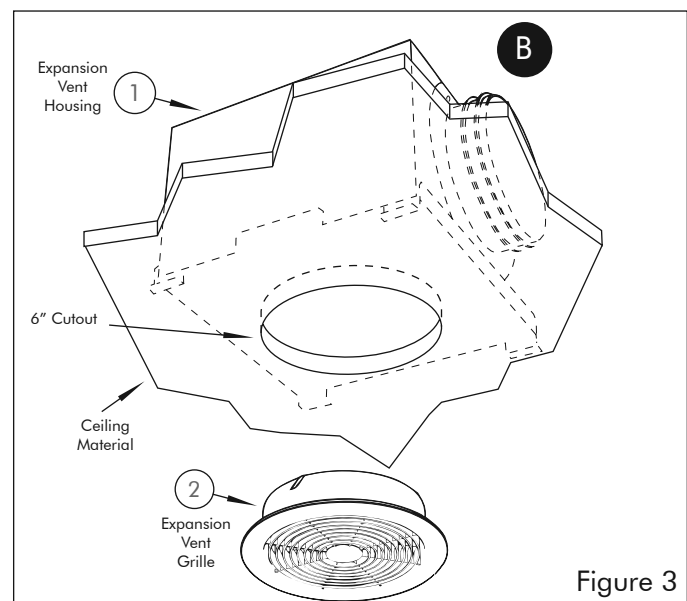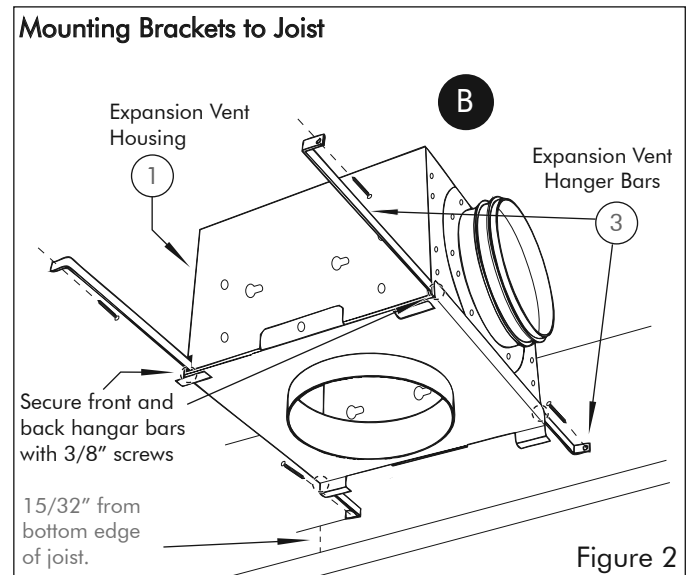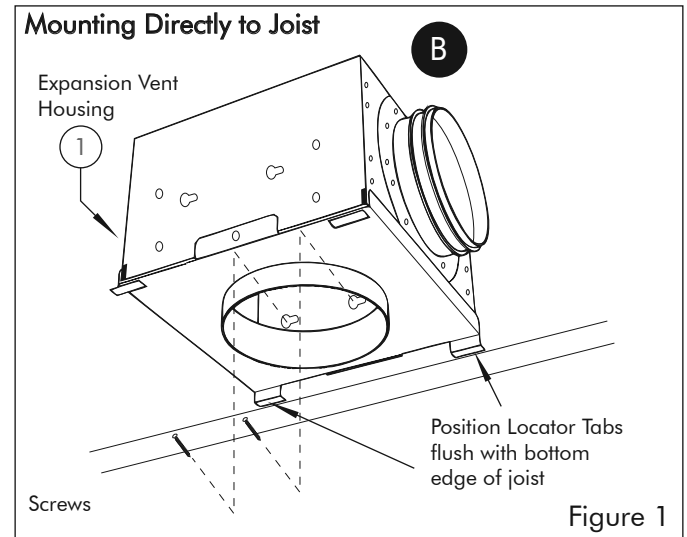
Expansion Ventilation Installation

Installation

1. Based on the bathroom layout and fixtures, plan the location of the expansion vent grilles (2) for the most effective ventilation.

2. Mount expansion vent housing (1) directly to the ceiling joist using screws and keyhole slots. Locator tabs on housing should be flush with the bottom edge of the ceiling joist for correct positioning of the unit once ceiling material is installed (see figure 1 on page 9).

   OR

   Use the expansion vent hanger bars (3) to suspend the expansion vent housing (1) between ceiling joists. For correct positioning, hanger bars (3) should be positioned 15/32" up from the bottom edge of the ceiling joist. Secure hanger bars with 3/8" screws (see figure 2 on page 9).

   Note: Expansion vent hanger bars (3) can be used on ceiling joists up to 16" on center.

   Note: If ceiling material is thicker than 5/8" the locator tabs may be removed to allow the grille collar to be flush with the finished ceiling material.

   **Note:** Designed for 1-1/8" ceiling material maximum.

3. Cut a 6" round hole for the expansion vent grille (2).

4. Install the expansion vent grille (2) by pushing it firmly into the steel collar until it is shouldered by the ceiling material (see figure 3 on page 9).

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Control Specifications and Installation

Specifications

Electronic Time Control ①

Operating Voltage: 120VAC, 60Hz
Nominal Amperage: 20 Amps
Motorload: 1HP
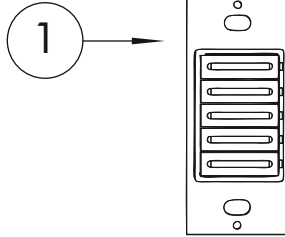
Optional

Slide Speed Control ②

Operating Voltage: 120VAC, 60Hz
Nominal Amperage: 5 Amps
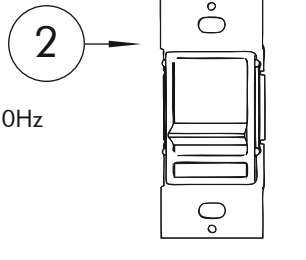
CAUTION For safety purposes, use safety goggles at all times.

⚠WARNING Before wiring to power supply, turn off electricity at the fuse or circuit breaker box.

⚠WARNING Check for piping/electrical before cutting or drilling.

⚠WARNING Electrical components are not waterproof.
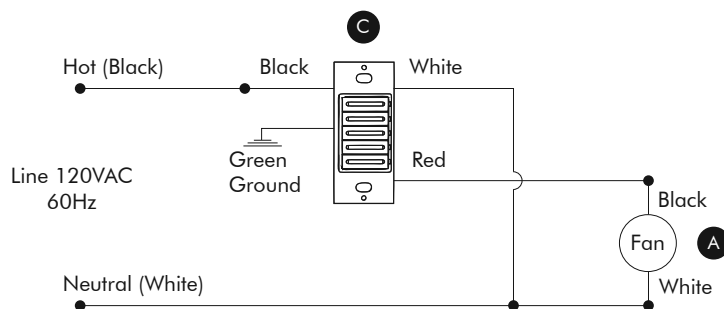
⚠WARNING If there is any risk of uninsulated electrical connections in your wall/ceiling area, use insulating gloves.

Installation Considerations

- **Warning:** For your safety, read and understand instructions completely before starting. Before wiring to power supply, turn off electricity at the fuse or circuit breaker box.

- **Note:** All wiring must be done in accordance with National Electrical Code and local building code.

- **Note:** NEVER place a switch where it can be reached from a tub or shower.

- **Note:** Recommended minimum wall box depth is 2-1/2".

- **Note:** Maximum wire length from electronic time control to all installed remote switches cannot exceed 300 ft (90m).

- **Note:** Use these devices with copper or copper clad wire only.

- **Note:** When combinations of electronic time control / slide speed control are installed in a ganged wall or outlet box, derating is required. When two devices are mounted in a ganged box, the maxminum load per device shall not exceed 4A or 500 watts. When three or more devices are mounted in a ganged box, the maximum load shall not exceed 3A or 400 watts.

- **Note:** The electronic time control and the slide speed control should be installed 48" above the floor, on a vertical wall, convenient for user operation.

Atmospheric 330   by BATHOLOGY

Control Installation

Timer / Fan Wiring

Hot (Black)   Black   C   White

Green Ground

Line 120VAC 60Hz   Red

Fan   A   Black

White

Neutral (White)

Timer / Light / Fan Wiring

Hot (Black)   Black   C   White

Green Ground

Line 120VAC 60Hz   Red

Black

Vent Lights   B   Black

Black   Fan   A   Black

White   White

Neutral (White)

Timer / Slider / Fan Wiring

Hot (Black)   Black   C   White   D   Green Ground

Green Ground

Line 120VAC 60Hz   Red   Black   Black   Black

Fan   A   White

Neutral (White)
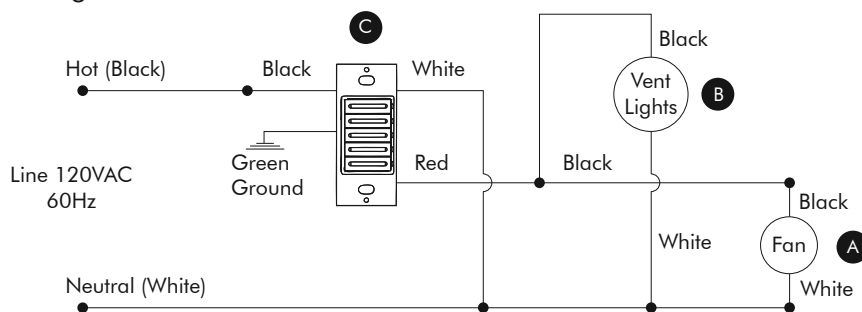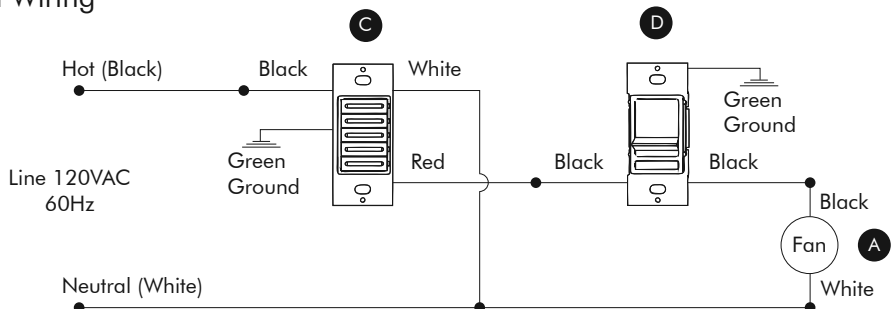
Timer / Lights / Slider / Fan Wiring

Hot (Black)   Black   C   White   Black   D   Green Ground

Green Ground

Line 120VAC 60Hz   Red   Vent Lights   B   Black

Black   Black

White   Black   Fan   A   White

Neutral (White)
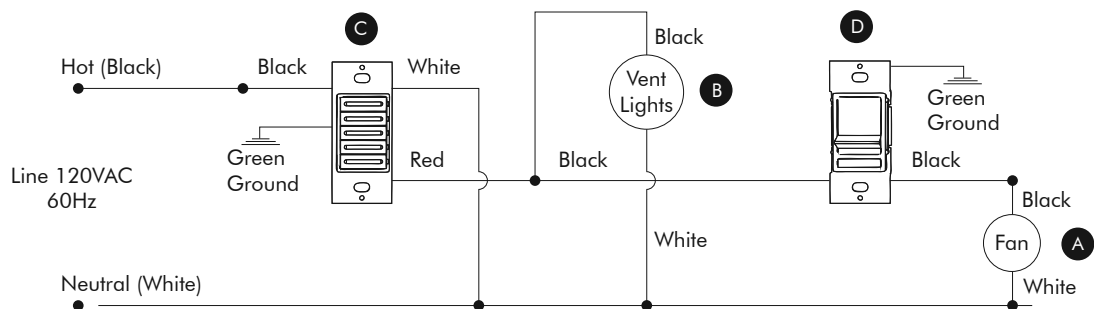
Control Installation

Important: It is recommended that all electrical equipment be tested prior to installation.

Installation

1. To change faceplate of electronic time control (1), push in the side of the faceplate at the tabs to release. With desired faceplate, line up tabs and press in sides one at a time to attach.

2. Remove pre-cut 3/8" of insulation from each circuit conductor. Make sure the ends of wires are straight.

3. Install electronic time control (1) and slide speed control (2) into double gang box, two single gang boxes, or single gang box as installation permits.

4. Connect wires per applicable wiring diagram on previous page: Twist strands of each lead tightly together and, with circuit conductors, push firmly into appropriate wire connector. Screw connectors on clockwise making sure no bare conductors show below the wire connectors. Secure each connector with electrical tape.

5. Restore power at circuit breaker or fuse.

Operation

Press timer button based on desired operation time. This will enable use of the slide speed control (B), as well as illuminate expansion vent lighting if present. Slide bar control up or down for desired fan rotation speed. ON/OFF rocker switch will turn fan ON at speed set by slide bar.

Atmospheric 330   by BATHOLOGY

Damper Specifications / Installation

Specifications

Damper   ①

Dimensions: 6" Diameter x 6" Length
Body Composition: 28 guage galvanized steel
Blade Composition: Aluminum blades
Gasket Composition: Foam

Input   Output
>>>>>   AIR FLOW   >>>>>
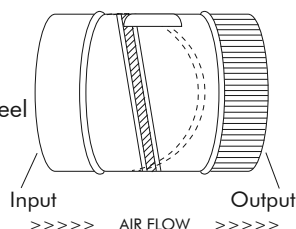
Damper Screw   ②

Installation Considerations

Please read this manual in its entirety prior to installation.

- Note: Output end should never be lower than input.

- Note: Follow all applicable codes and standards.

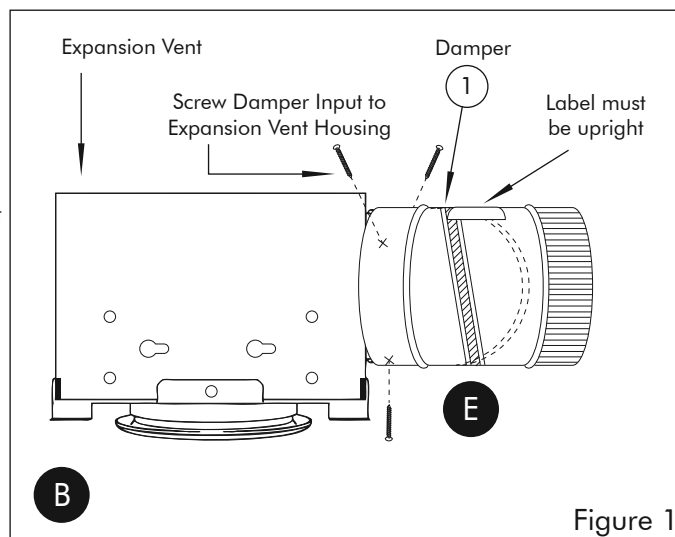### Installation
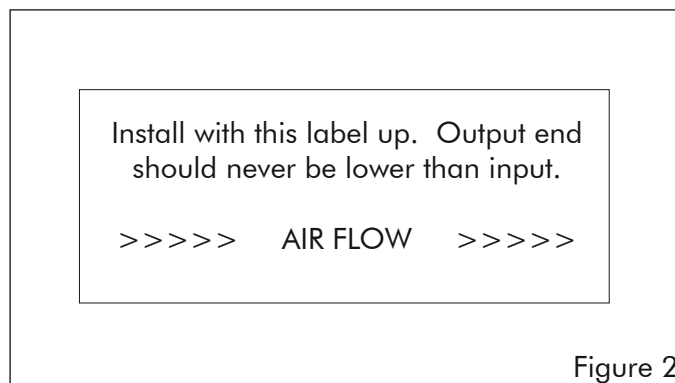
Expansion Vent   Damper
①
Screw Damper Input to
Expansion Vent Housing

Label must
be upright

B   E

Figure 1

Install with this label up. Output end
should never be lower than input.

>>>>>   AIR FLOW   >>>>>

Figure 2

Atmospheric 330

by BATHOLOGY

Roof Cap / Wall Vent Specifications and Installation
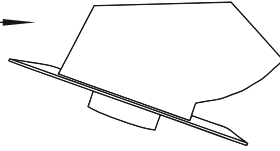
Specifications

Roof Cap, 6" ①

Composition: Galvanized Steel
Rough-in Cutout: 6-1/8"
Duct Connection: 6"
Cap Dimensions: 10-3/4"L x 8-1/4"W x 5-1/4"H

Wall Vent, 6" ②

Grille Composition: Plastic
Extension Composition: Galvanized Steel
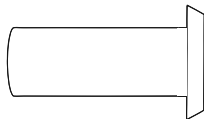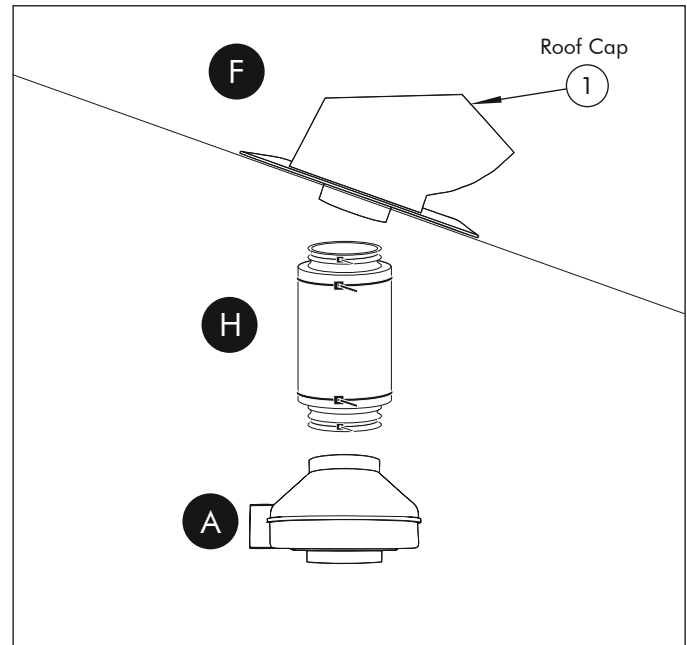**Rough-in Cutout:** 6-1/8"
Duct Connection: 6"
Cap Dimensions: 8-1/8"L x 8-1/8"W x 7/16"H
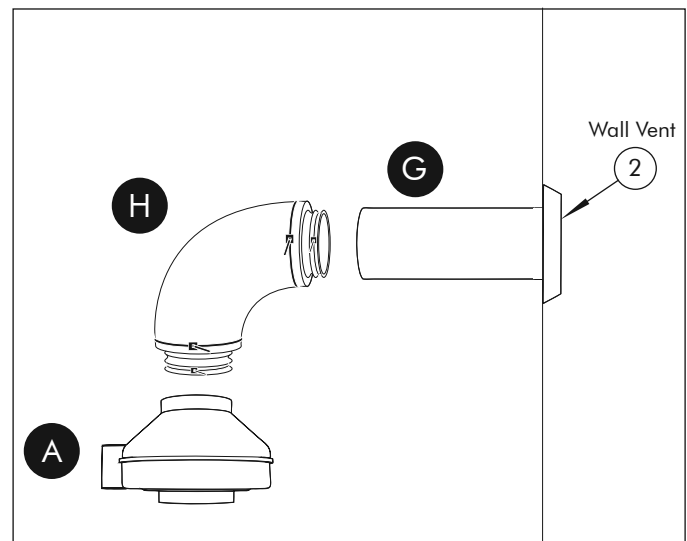**Duct Extension:** 6" Diameter x 12" Length

Installation Considerations

Please read this manual in its entirety prior to installation.

- **Note:** Do not install the roof cap on a flat roof!

- **Note:** Follow all applicable codes and standards.

Installation

Atmospheric 330   by B A T H O L O G Y

Duct Specifications and Installation

Specifications

Flex Duct, 6"

①

Dimensions: 6" Diameter x 25' Length
Insulation: Fiberglass
Outer Cover: Tri-directional, scrim reinforced grey polyester
Testing: U.L. Listed, Suitable for Wet Locations
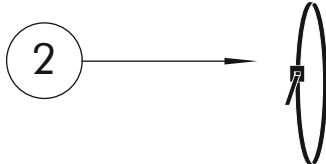**R-Value:** 4.2
Rated Positive Pressure: 10" w.g. per UL-181
Maximum Positive: 6" w.g.
Maximum Negative: 3/4" w.g.
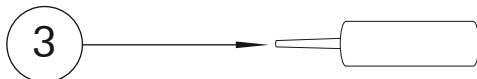**Maximum Velocity:** 5000 FPM
Maximum Operating Temperatures: -20°F to 140°F
         Continuous (@ maximum pressure)

Flex Duct Tie, 36"

②

Compliance: UL-181-B

Mastic Tube

③

Compliance: UL-181-B
Net Contents: 1/12 Gallon

Installation

Exhaust to Roof
Cap or Wall Vent

100 CFM Fan

Flex Duct
Tie, 36"

②

Damper, 4"

①

Flex Duct,
6" x 25'

Expansion Vent

Figure 1

Fold back outer
cover and insulation

Apply Mastic (3)
over fitting and / or
inside the inner liner

Slide inner liner
at least 1" over fitting

Secure inner liner
to fitting with 36" tie (2)

Apply additional mastic (3)
over the connection

Pull outer cover and insulation
to completely cover the fitting.

Secure outer cover and
insulation to fitting
with 36" tie (2)

Figure 2

Install duct fully extended. Do not install
in a compressed state or use excess lengths.
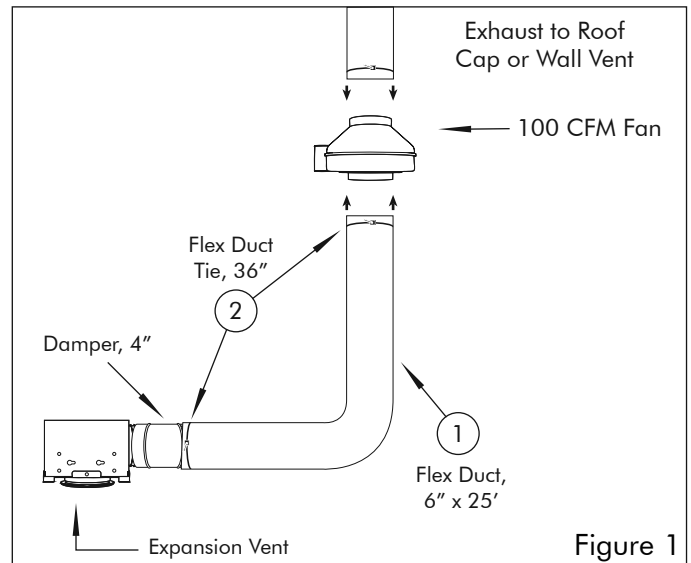
Minimum radius =
the diameter of
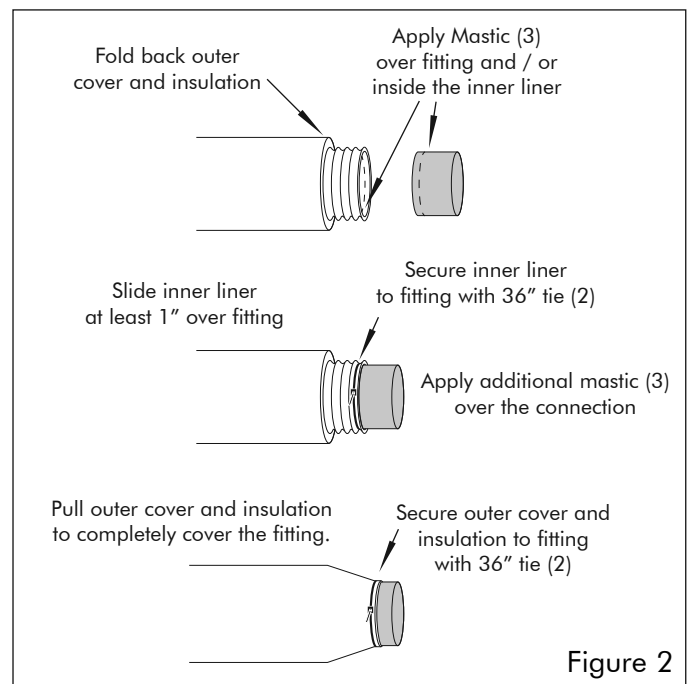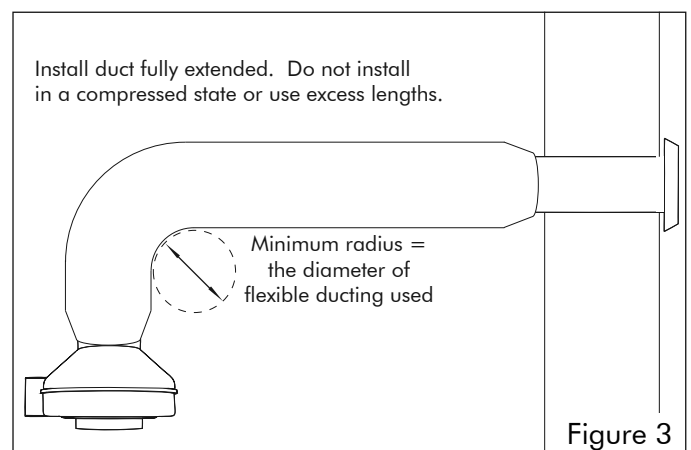flexible ducting used

Figure 3

Duct Installation

Installation Considerations

Note: Do not use "outdoors" or install where duct can be exposed to direct sunlight. Prolonged exposure may cause degradation of vapor barrier.

Note: Do not install where duct can be exposed to UV radiation from bio-treatment lamps within the HVAC system. Exposure may cause degradation of the inner core.

Note: Not not exceed published pressure or temperature limits.

Note: Do not use duct to hang or support any diffuser, register, or other equipment during installation.

Note: Do not use screws or barbed fitting to make connections on ducts with plain ends.

Note: Duct should be supported at 5' maximum intervals unless resting on ceiling joists or truss supports. 1/2" sag per foot of support spacing is permissible. Vertically installed duct shall be stablized by support straps at a maximum of 6' on center.

Note: Do not use on oval collars for medium or high pressure.

Warning: Insulated flexible duct contains fiber glass wool which has been classified as a possible cancer hazard by inhalation. Fiber glass wool may cause temporary irritation to skin, eyes, and respiratory tract.

Note: Use a poperly fitted NIOSH or MSHA approved dust/mist respirator.

Note: Avoid breathing fiber glass duct.

Note: Avoid contact with skin and eyes.

Note: Wear long-sleeved, loose fitting clothing, gloves and eye protection.

Note: Wash with soap and warm water after handling.

Note: Wash work clothes separately and rinse washer thoroughly.

Note: All tapes, mastics, and non-metallic fasteners used for field installation of flexible ducts shall be listed and labeled to Standard UL-181-B - Closure Systems for use with Flexible Air Ducts and Air Connectors. Non-metallic fasteners are limited to 6" w.g. maximum positive pressure.

Note: It is recommended a minimum 8' of insulated flexible ducting be used between any expansion vent and fan for low noise level.

Note: A multipurpose tool is recommended for duct installation.

Note: Follow all applicable codes and standards.

Installation

1. After desired length is determined, cut completely around the through duct with multipurpose tool. Fold back outer cover and insulation. Apply mastic over fitting and / or inside the inner liner (see figure 2 and 3 on page 16).

2. Slide at least 1" of inner liner over fitting. Seal inner lining to collar. Secure connection with tie placed over the inner lining.

3. Pull outer cover and insulation back over inner lining. Secure connection with tie placed over the outer cover and insulation.