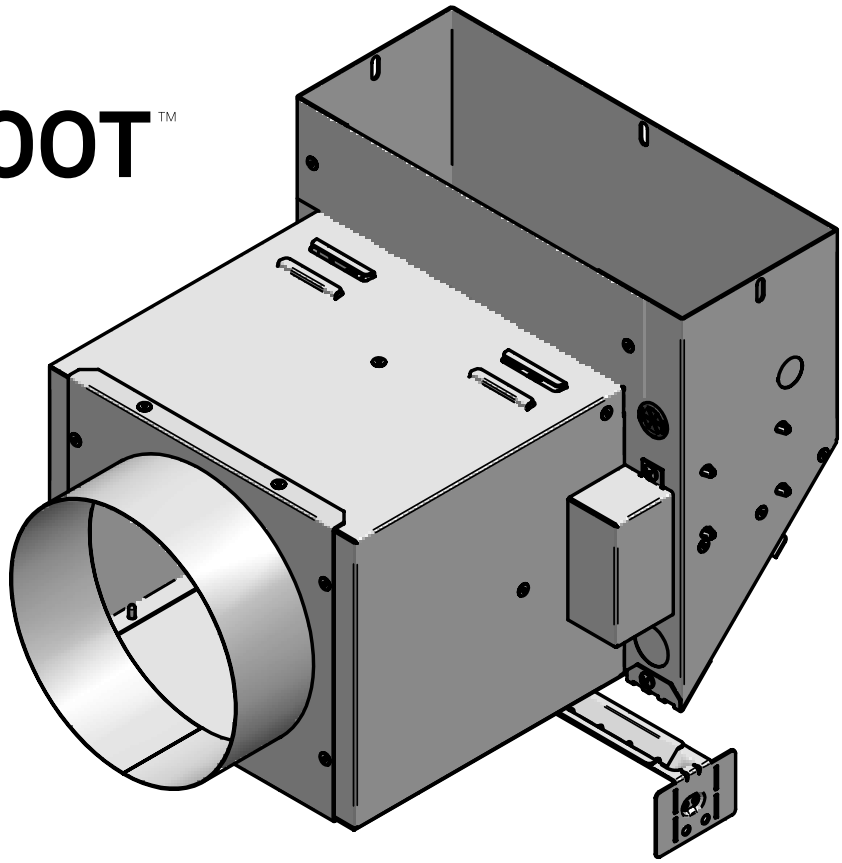
STELPRO
360 comfort

USER AND INSTALLATION GUIDE

SAB SERIES
ANGLED HEATING BOOT™

REPLACEMENT COMPONENT LIST INCLUDED

ECOBOOT™
PATENT PENDING



c UL us LISTED

This unit complies with CSA and UL standards

⚠ WARNING

Before installing or using this product, you must read and understand these instructions and keep them handy for future reference. The manufacturer may not be held liable in any way and the warranty will not be valid if the installer and user do not follow these instructions.

This product must be installed by a qualified person and connected by a certified electrician in compliance with current electricity and construction codes in your area.

Failure to follow these instructions may lead to physical injury, material harm, serious bodily harm and potentially fatal electric shock.

Protect the device using appropriate circuit breakers or fuses by referring to the rating plate.

Make certain that the supply voltage corresponds to the one indicated on the rating plate.

This device must be grounded.

Cut the power to the device at the circuit breaker / fuse before installing, repairing or cleaning the device.

Make certain that the device is designed for the planned use (if necessary, consult the product catalogue or a salesperson).

If the device's power is inadequate for the size of the home, it will operate non-stop, which will cause it to wear out prematurely.

Do not install the device in places where there are objects that may be damaged by heat.

At the initial start-up, or when turning it on after a long period of disuse, it is normal for the device to give off certain odours temporarily, as well as a thin, whitish smoke.

Do not allow objects or furniture such as – but not limited to – blankets, towels, a bed, a clothes hamper, clothing, paper, etc., to come in contact with the device, and keep them at a distance of at least 12 inches (30.5 cm) from the device. In addition, some materials are more sensitive to heat than others; therefore make certain that anything located close to the device will tolerate the heat it gives off.

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Follow the distances and positions mentioned in the installation section of this guide.

If the installer or user modifies the device in any way whatsoever, he will be held liable for any damage resulting from this modification, and the UL certification may be invalidated.

This device must not come in contact with a water source, such as – but not limited to – a shower, bathtub, sink, toilet, etc., and must be shielded from splashes. Do not use if any part has been submerged. In addition, this device must not be turned on or off when you have your feet in water or your hands are wet.

Since it becomes hot, this device poses risks even when it is operating normally. Be cautious, aware and attentive when you use it. To avoid burns, do not let exposed skin come in contact with the hot surfaces. Let the device cool down for a few minutes before handling (it stays hot for a certain period of time).

Never block the device's air intakes or outlets. Such blockage would cause overheating, which could cause a fire.

Do not insert foreign bodies into the device's air intakes and outlets, as this might damage it and cause electrical shock or a fire.

The device includes hot parts and may produce electric arcs (sparks). It is not designed to be used or stored in damp places or those containing flammable liquids, combustible materials or corrosive, abrasive, chemical or explosive products such as – but not limited to – paint, gasoline, chlorine and cleaning products.

Some places are dustier than others. There is a fire hazard if the product is not installed and cleaned according to these instructions. Accumulated dirt can cause the device to turn yellow or cause components to become defective.

If the thermal protection is activated, it means that the device has been subjected to abnormal operating conditions. If it remains active or goes on and off repeatedly, it is recommended that you have the device inspected by a qualified electrician or recognized repair centre to make certain it is not damaged (refer in advance to the terms of the limited warranty).

If this device is damaged or defective, cut off its power at the circuit breaker / fuse and have it repaired by a recognised repair centre (refer in advance to the terms of the limited warranty).

Make certain that the electrical connections are solid and that they have been adequately made. Pull on each of the wires to make certain there is no slack in the connector or terminal block. Failure to follow this instruction may cause a fire.

The floor register must be metal, all other type of materials are prohibited.

CAUTION

NEVER USE A STANDARD HEATING BOOT FOR AN APPLICATION WHERE THERE IS A RISK OF EXPLOSION.

The air circulating in the duct where the heating boot is installed must not contain any combustible and/or flammable material.

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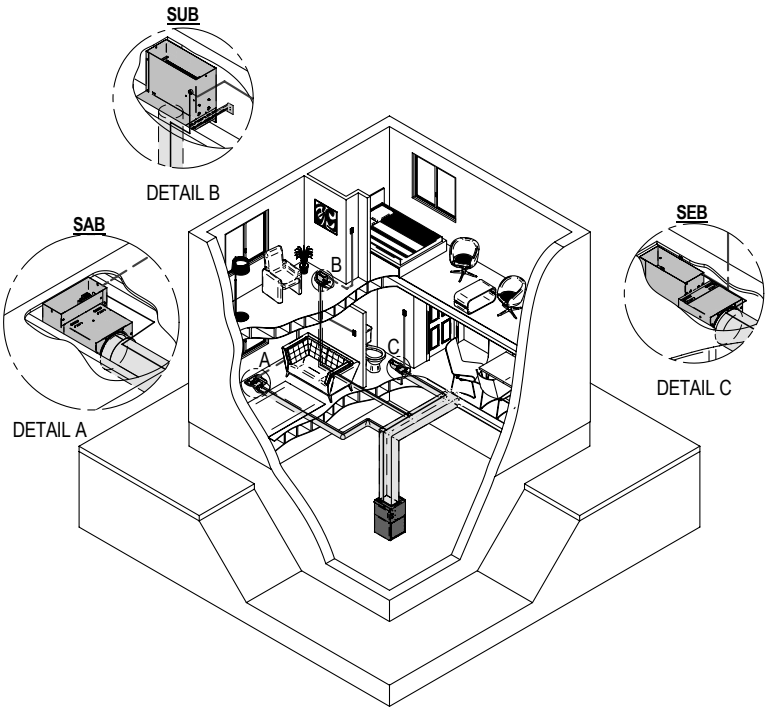

LIST OF MODELS

PRODUCTS	DUCT DIA.	WATTAGE	VOLTAGE
SAB040501	4"	500	120
SAB040751	4"	750	120
SAB050501	5"	500	120
SAB050751	5"	750	120
SAB060501	6"	500	120
SAB060751	6"	750	120
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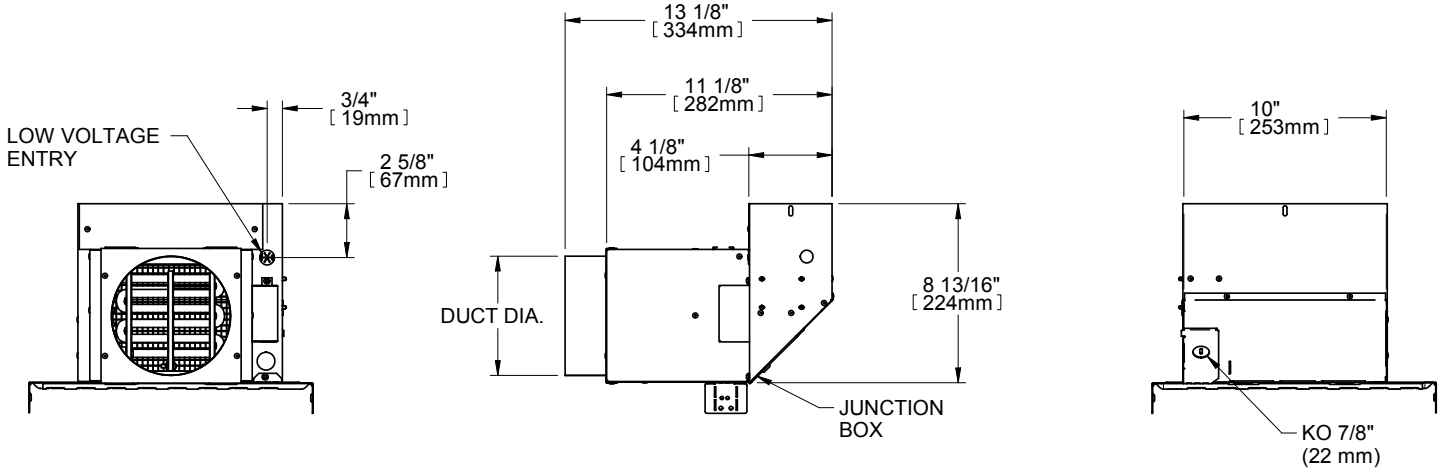
SAB061007	6"	1000	277
SAB061257	6"	1250	277
SAB061507	6"	1500	277

MECHANICAL DRAWINGS

MODEL	DUCT DIA.	WEIGHT
SAB04XXXX	4"	12 lbs
SAB05XXXX	5"	12 lbs
SAB06XXXX	6"	12 lbs



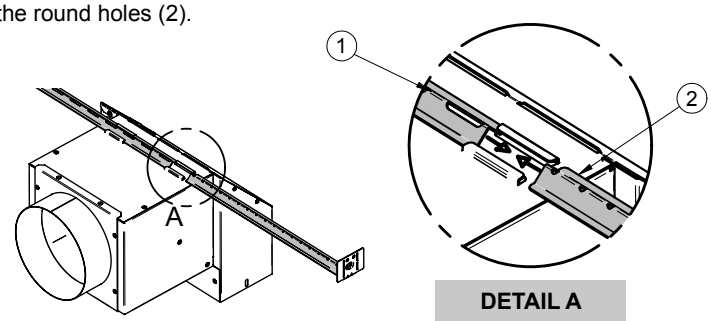
MECHANICAL INSTALLATION

GENERAL INSTALLATION NOTES

- The terminal heating boot must always be installed so that the outlet (4-1/4 inches x 10-1/4 inches) is level with the floor/ceiling/wall.
- The terminal heating boot must be the last component in an air duct, e.g. the outlet.
- The installation must be done using the sliding brackets provided.
- The hole for installation must measure 4-1/4 inches (108mm) x 10-1/4 inches (260mm).
- Do not place any filter at the heating boot outlet.

INSTALLING THE SLIDING BRACKETS

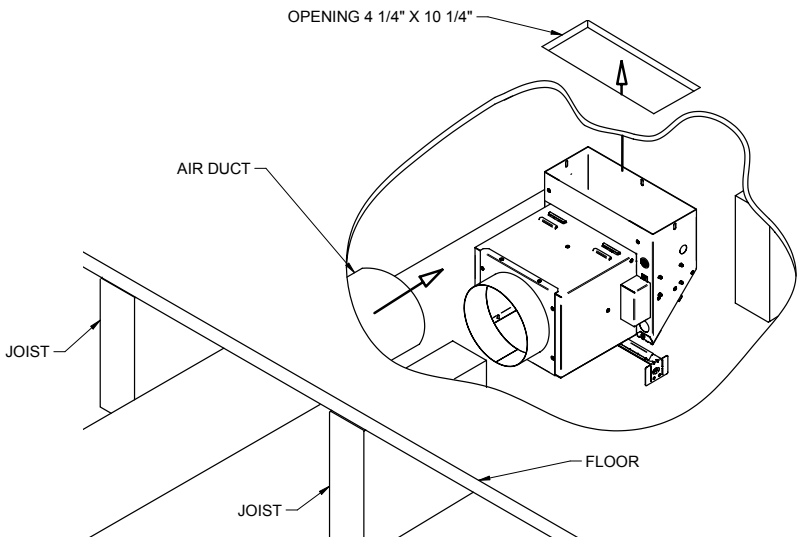
Install the sliding brackets by sliding them into the tracks provided for that purpose. The brackets must be superimposed on each other so that the bracket with the oblong holes (1) is on top of the bracket with the round holes (2).



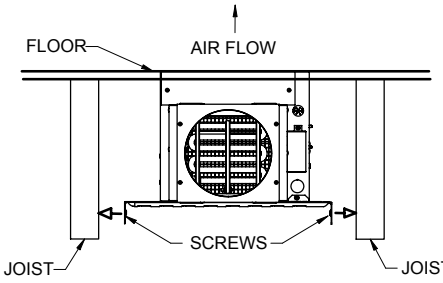
DETAIL A

MECHANICAL INSTALLATION OF THE PRODUCT

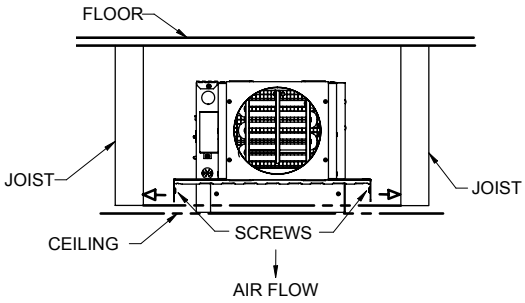
- Install under the floor, between the joists. (This product can also be installed on the ceiling and wall).
- Slide the brackets up to the joists and fasten using the wood screws.
- THE BRACKETS MUST BE SHORTENED TO ACCOMMODATE INSTALLATION BETWEEN JOISTS SPACED LESS THAN 14 INCHES APART.

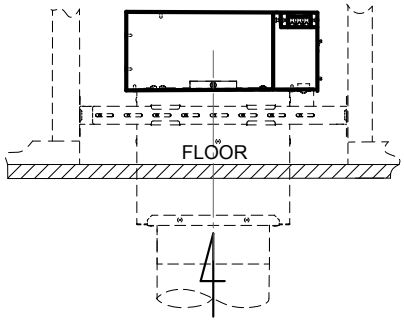


FLOOR INSTALLATION

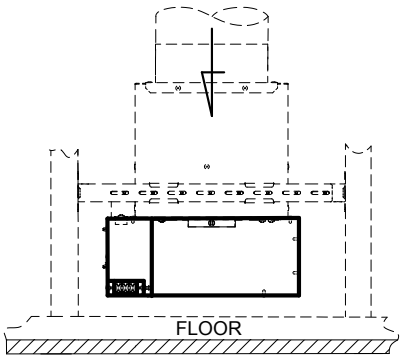


CEILING INSTALLATION

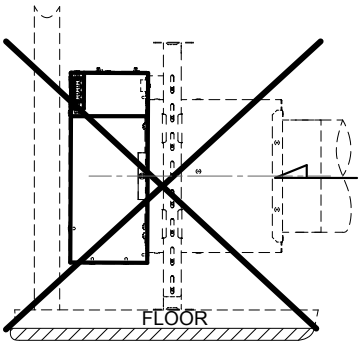




WALL INSTALLATION
AIR INLET FROM BOTTOM



WALL INSTALLATION
AIR INLET FROM CEILING



NOT ALLOWED

~~**WALL INSTALLATION**~~
~~AIR INLET FROM SIDE~~

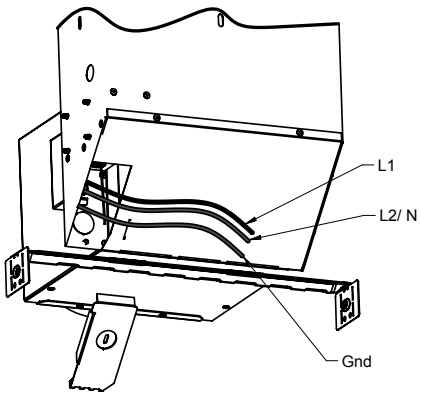
ELECTRICAL INSTALLATION

WARNING: Before installing or using this product, you must read and understand these instructions and keep them handy for future reference. The manufacturer may not be held liable in any way, and the warranty will not be valid if the installer and user do not follow these instructions.

- This product must be installed by a qualified person and connected by a certified electrician in compliance with current electricity and construction codes in your area.
- The electrical contractor must also comply with the regulations prescribed by the local electricity supplier for low-voltage electrical installations and with current codes in your area.
- Read the rating plate carefully and consult the electrical diagram before starting the wiring.
- Cut all power sources before doing the electrical connection work.

POWER CONNECTIONS

Connect to the power source coming from a thermostat using the wires provided in the device and illustrated in the following figure.

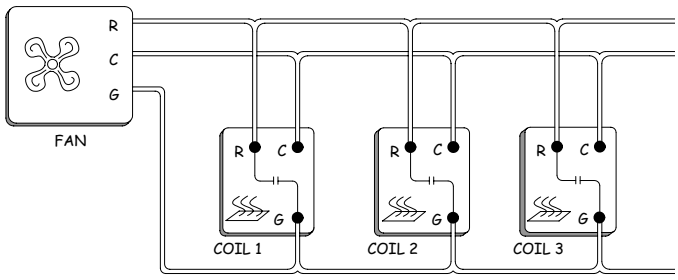


LOW-VOLTAGE CONNECTION

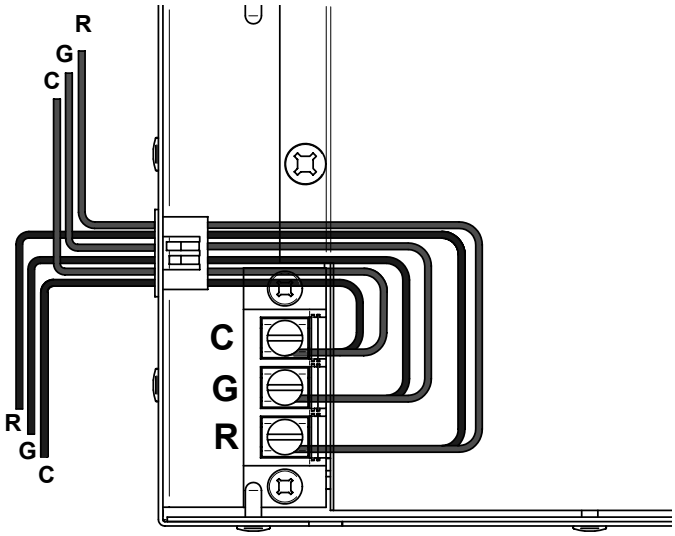
The electrical coils must be connected to the central fan by a low-voltage circuit. This circuit enables the coils to control the fan in order to send it a start command when the element is turned on.

The coils have to be connected in parallel with the fan daisy-chain style using three (3) low-voltage ports.

The following figure shows an example of a low-voltage circuit connection of three products and a fan.



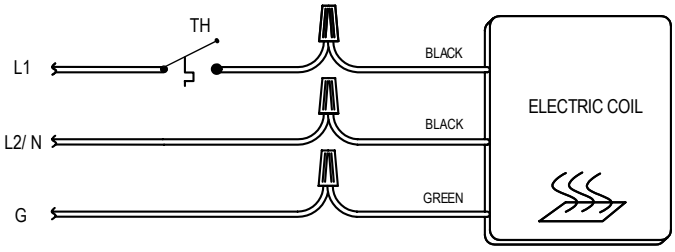
The wires need to be connected to the product as illustrated in the following image:



OPERATION

POWER CONTROL

The electrical coil's power supply is controlled by the thermostat it is connected to. The elements are therefore turned on when the thermostat sends a heat request.

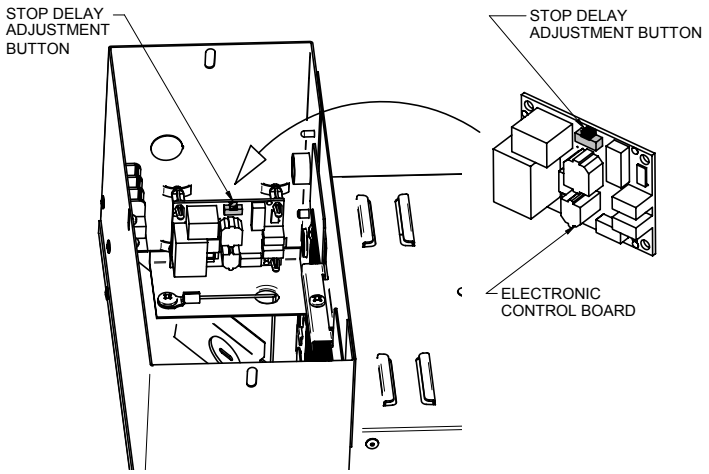


CONTROLLING THE FAN (LOW-VOLTAGE)

The fan's start control is provided by the electrical coil. The coil has an electronic board that detects when the element is turned on and sends a start command to the fan to provide ventilation for the element. Only one coil needs to be supplied with power in order for the fan to start.

There is a delay before the fan stops after the heat has been turned off by the thermostat. This delay can be set to one (1) or two (2) minutes using the sliding button located on the side of the electronic board.

NOTE: Cut the power supply to the device at the circuit breaker / fuse before handling the device.



START

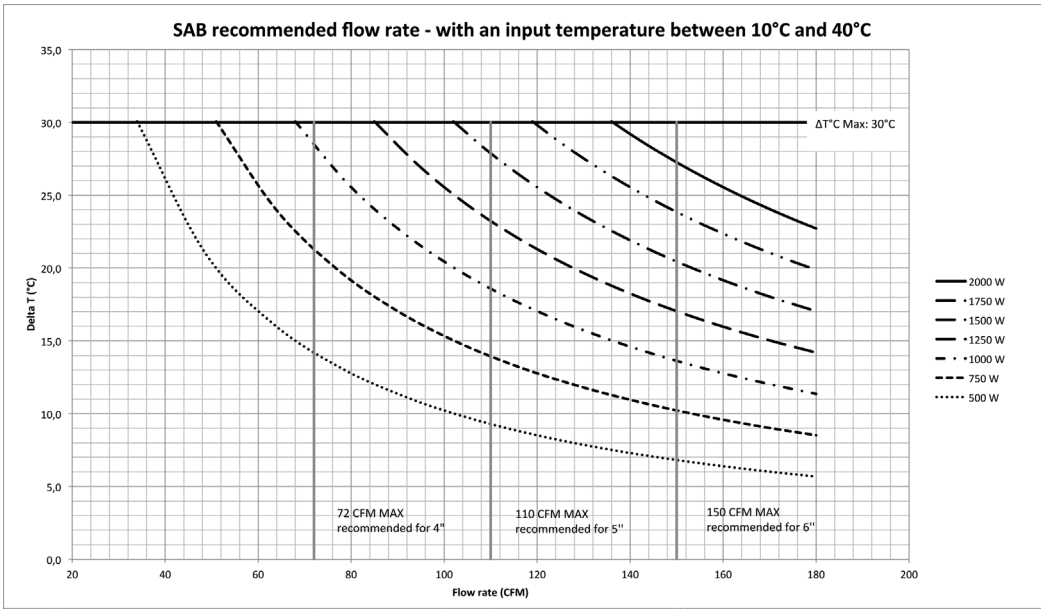
After installing all devices, make certain they are operating correctly by following these steps:

- Check the demand to the fan on each unit. Note that there may be a delay of up to 1 minute.
- Identify the maximum temperature at the air outlet. The difference between it and the intake temperature (ΔT) must not exceed 86°F (30°C).

The flow rate at the outlet must correspond to the rates in the following table:

If one of the preceding points is not met, check that the installation was properly done following the guide's instructions. Otherwise check with our customer service (see the "Limited Warranty" section for the telephone numbers).

NOTE: Consider the air restriction of the outlet as a standard end outlet.



MAINTENANCE

NOTE: Cut the power to the device at the circuit breaker / fuse before repairing or cleaning the device.

It is recommended that you conduct a periodic visual inspection to spot any anomalies that might occur over time. For example: dust accumulation, signs of overheating on the coil frame, signs of water on the control unit, corrosion on the electrical connections.

ROUTINE MAINTENANCE

The only necessary routine maintenance consists of checking all the electrical connections at least once a year or season of use to make certain they are tight.

POINTS TO CHECK

- Check the tightness of connections.
- Check that there are no combustible materials in the duct.
- Check that there are no objects that might restrict air flow over the heating elements.

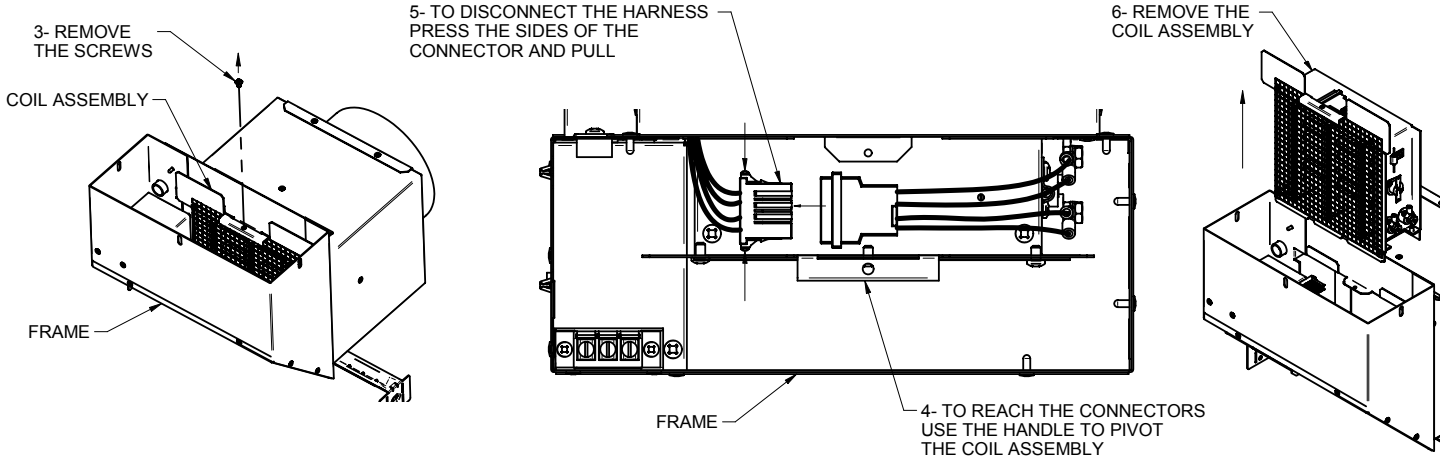
TROUBLESHOOTING

NOTE: Cut the power supply to the device at the circuit breaker / fuse before handling the device.

REPLACING AN INSERT

NOTE: Do not force the insert when removing or reinserting it. To remove the cable harness, do not pull on the wires; press on the sides of the harness.

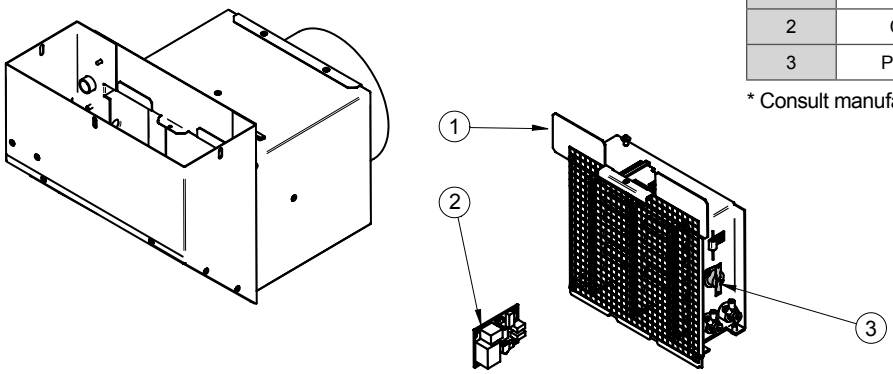
1. Make sure that the supply voltage (volts) corresponds to the one indicated on the rating plate.
2. Cut the power to the device at the circuit breaker / fuse before installing, repairing or cleaning the device.
3. to 6. Consult drawings below.



NOTE : To insert the coil assembly, do the opposite.

PROBLEM	DEFECTIVE PART OR PART TO CHECK
The heating boot does not start	- Tripped circuit breaker or fuse - Thermal protection activated - Inadequate power connection - Outside control (e.g., a thermostat) may be defective or improperly adjusted, positioned or connected
The heating boot is on but the elements are not working	- Outside control (e.g., a thermostat) may be defective or improperly adjusted, positioned or connected - Fuse link tripped - Automatic thermal protection tripped
The heating boot and ventilation run constantly	- Outside control defective or improperly adjusted, positioned or connected - Heat losses in the building exceed the device's heating capacity
The heating boot cycles when there is a heat demand	- Lack of ventilation - Obstructed air intake/outlet
The circuit breaker trips when the device is turned on	- Inadequate power connection - Power-source voltage higher than that specified on the rating plate - Insufficient circuit breaker capacity
The desired room temperature is never reached	- One or more defective elements - Outside control defective or improperly adjusted, positioned or connected - Power-source voltage lower than that specified on the rating plate - Heat losses in the building exceed the device's heating capacity - Automatic thermal protection is tripped

REPLACEMENT COMPONENTS LIST



ITEM	PART	DESCRIPTION
1	AEC-SABXXXX*	COIL FOR DUCT HEATER*
2	CIR-016	CIRCUT BOARD FOR END BOOTH SERIES
3	PROT-110	THERMAL PROTECTOR 130°F

* Consult manufacturer to obtain the correct replacement part number

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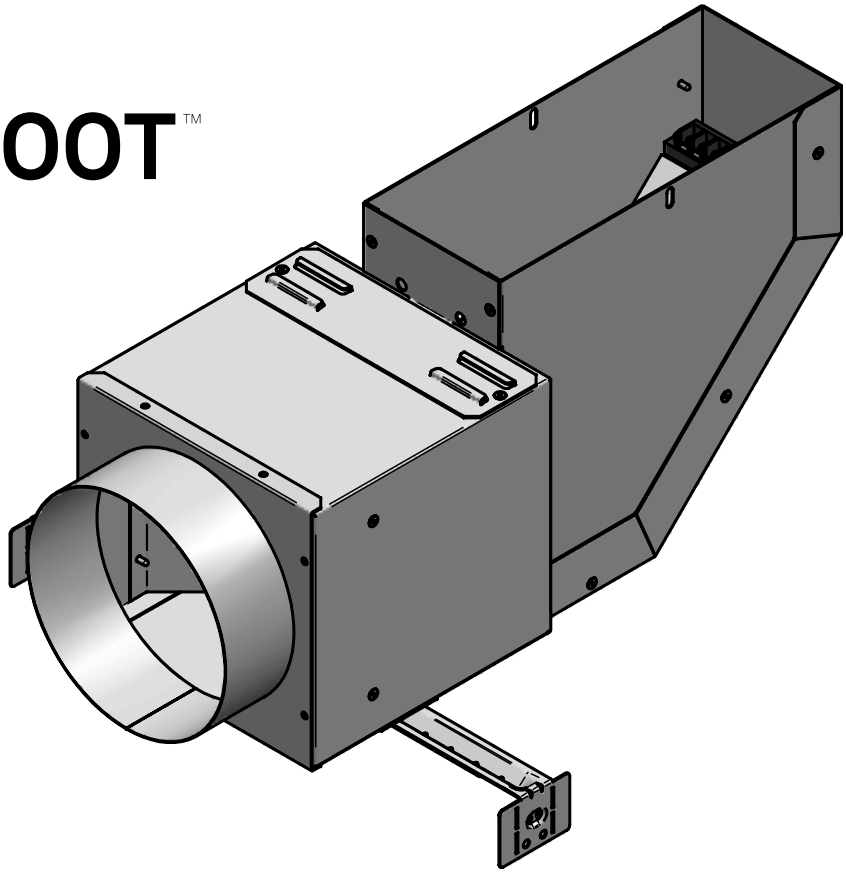

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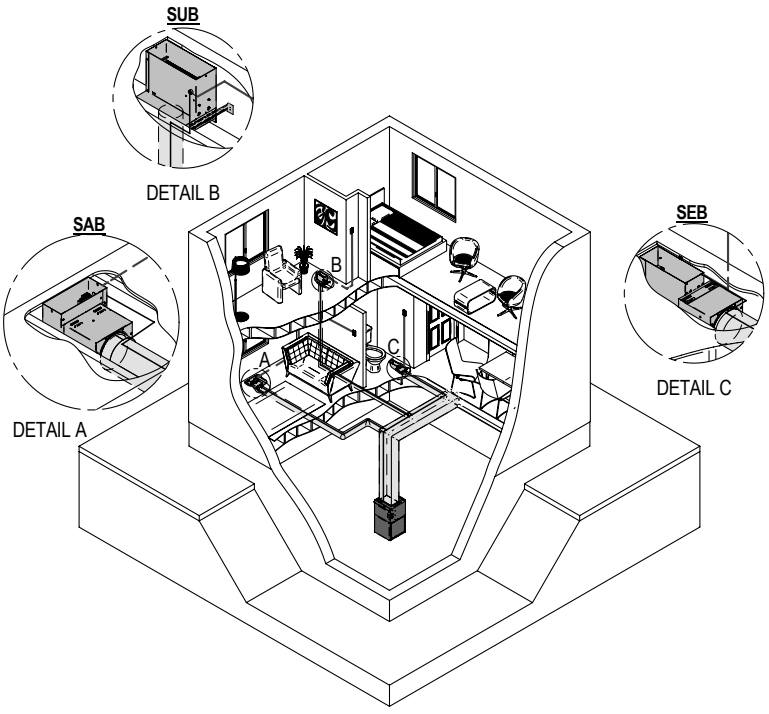

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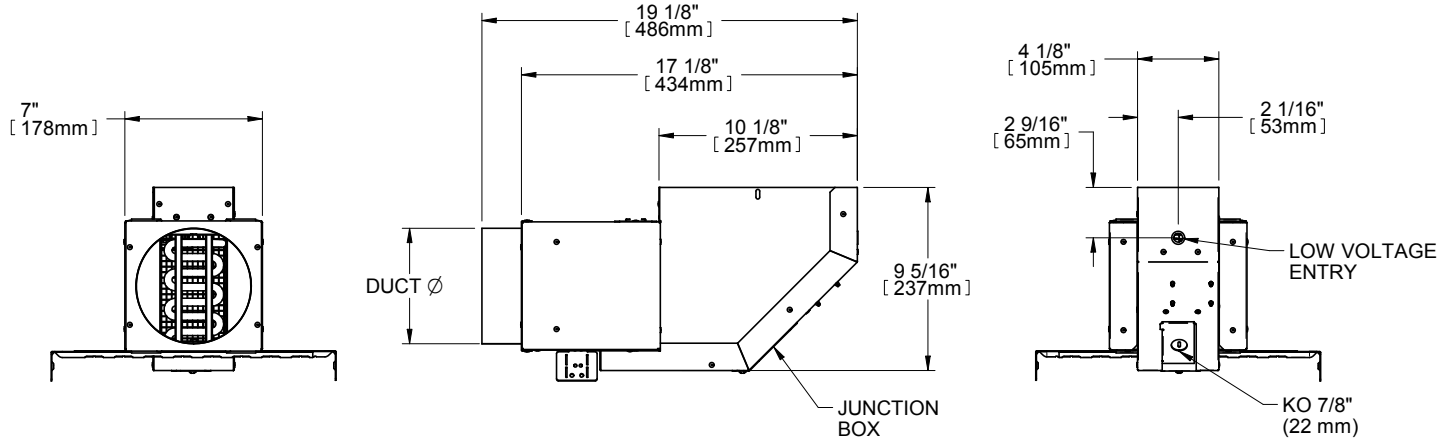
SEB061257	6"	1250	277

MECHANICAL DRAWINGS

MODEL	DUCT DIA.	WEIGHT
SEB04XXXX	4"	12 lbs
SEB05XXXX	5"	12 lbs
SEB06XXXX	6"	12 lbs

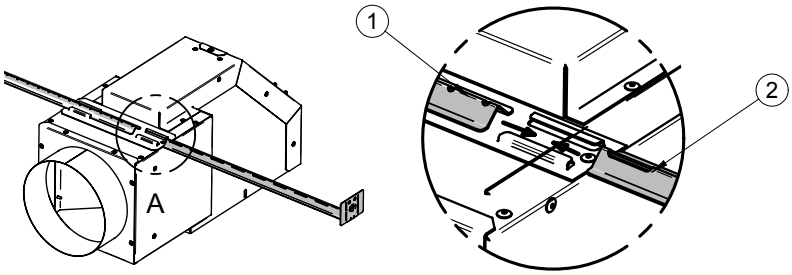


GENERAL INSTALLATION NOTES

- The terminal heating boot must always be installed so that the outlet (4-1/4 inches x 10-1/4 inches) is level with the floor/ceiling.
- The terminal heating boot must be the last component in an air duct, e.g. the outlet.
- The installation must be done using the sliding brackets provided.
- The hole for installation must measure 4-1/4 inches (108mm) x 10-1/4 inches (260mm).
- Do not place any filter at the heating boot outlet.

INSTALLING THE SLIDING BRACKETS

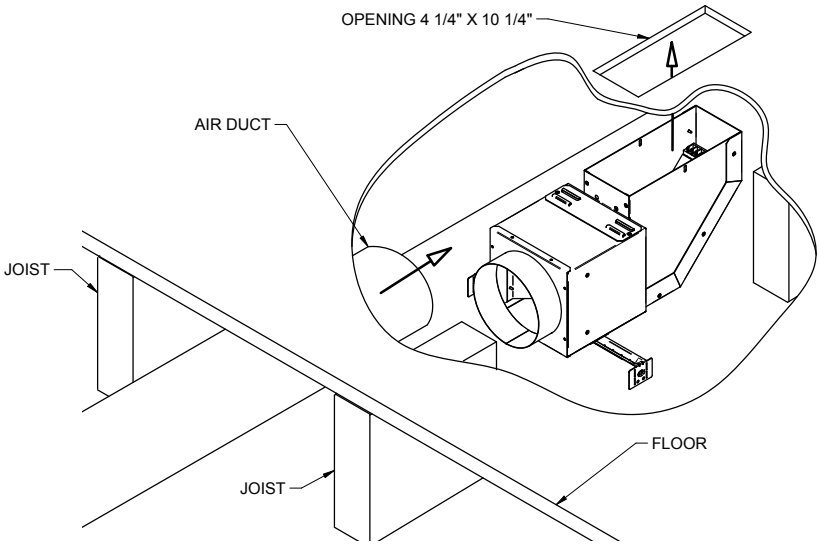
Install the sliding brackets by sliding them into the tracks provided for that purpose. The brackets must be superimposed on each other so that the bracket with the oblong holes (2) is on top of the bracket with the round holes (1).



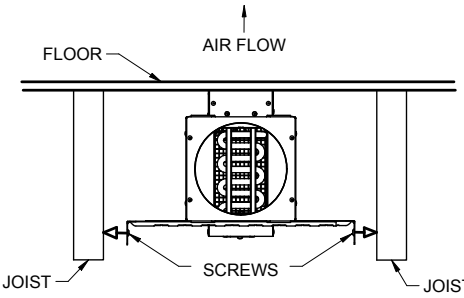
DETAIL A

MECHANICAL INSTALLATION OF THE PRODUCT

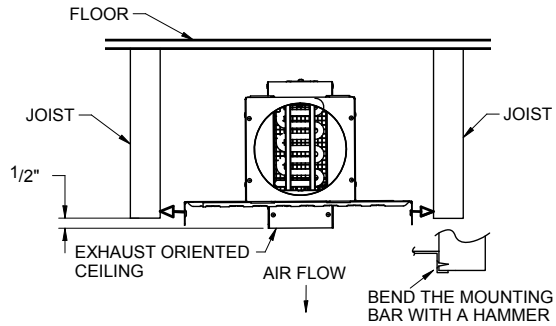
- Install under the floor, between the joists. (This product can also be installed inside the ceiling.
- Slide the brackets up to the joists and fasten using the wood screws.
- THE BRACKETS MUST BE SHORTENED TO ACCOMMODATE INSTALLATION BETWEEN JOISTS SPACED LESS THAN 14 INCHES APART.



FLOOR INSTALLATION



CEILING INSTALLATION



~~WALL INSTALLATION~~ - NOT ALLOWED

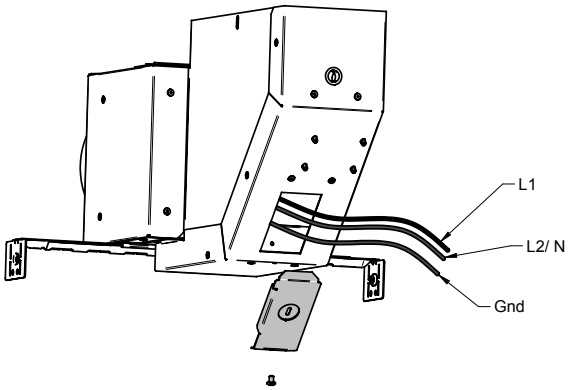
ELECTRICAL INSTALLATION

WARNING: Before installing or using this product, you must read and understand these instructions and keep them handy for future reference. The manufacturer may not be held liable in any way, and the warranty will not be valid if the installer and user do not follow these instructions.

- This product must be installed by a qualified person and connected by a certified electrician in compliance with current electricity and construction codes in your area.
- The electrical contractor must also comply with the regulations prescribed by the local electricity supplier for low-voltage electrical installations and with current codes in your area.
- Read the rating plate carefully and consult the electrical diagram before starting the wiring.
- Cut all power sources before doing the electrical connection work.

POWER CONNECTIONS

Connect to the power source coming from a thermostat using the wires provided in the device and illustrated in the following figure.

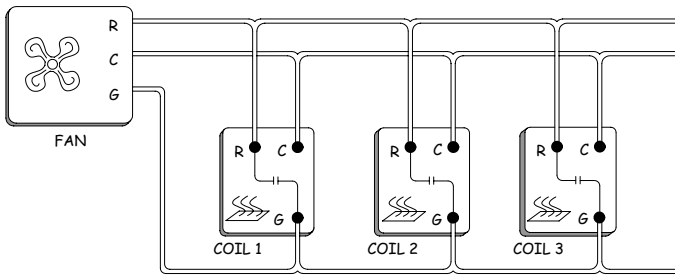


LOW-VOLTAGE CONNECTION

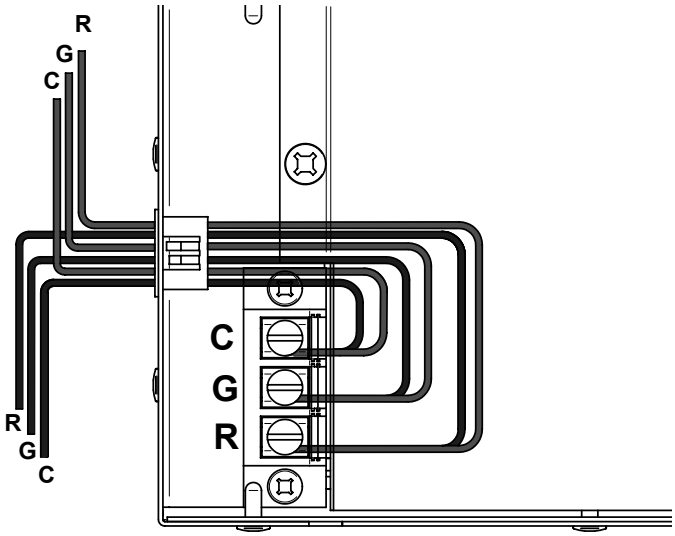
The electrical coils must be connected to the central fan by a low-voltage circuit. This circuit enables the coils to control the fan in order to send it a start command when the element is turned on.

The coils have to be connected in parallel with the fan daisy-chain style using three (3) low-voltage ports.

The following figure shows an example of a low-voltage circuit connection of three products and a fan.



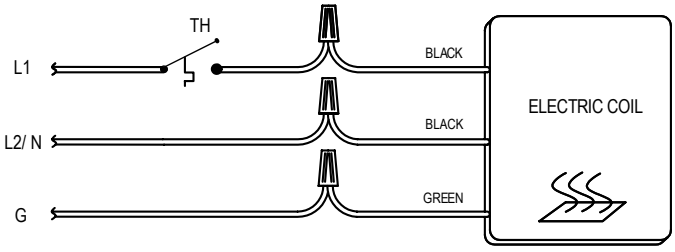
The wires need to be connected to the product as illustrated in the following image:



OPERATION

POWER CONTROL

The electrical coil's power supply is controlled by the thermostat it is connected to. The elements are therefore turned on when the thermostat sends a heat request.

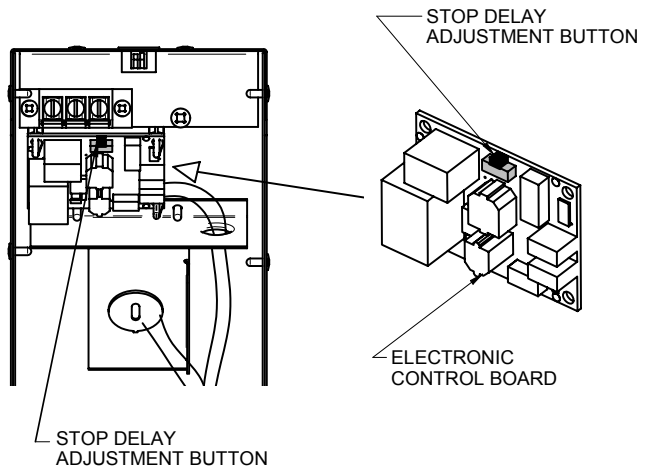


CONTROLLING THE FAN (LOW-VOLTAGE)

The fan's start control is provided by the electrical coil. The coil has an electronic board that detects when the element is turned on and sends a start command to the fan to provide ventilation for the element. Only one coil needs to be supplied with power in order for the fan to start.

There is a delay before the fan stops after the heat has been turned off by the thermostat. This delay can be set to one (1) or two (2) minutes using the sliding button located on the side of the electronic board.

NOTE: Cut the power supply to the device at the circuit breaker / fuse before handling the device.

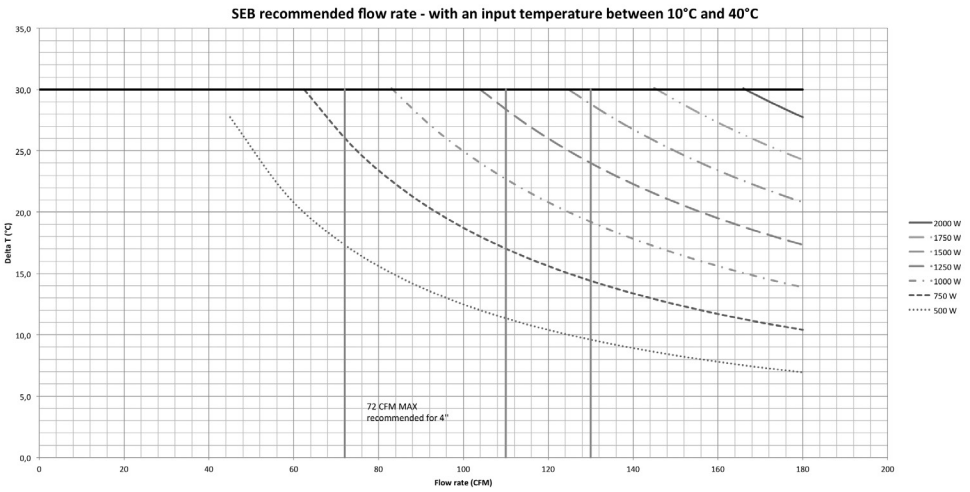


START

After installing all devices, make certain they are operating correctly by following these steps:

- Check the demand to the fan on each unit. Note that there may be a delay of up to 1 minute.
- Identify the maximum temperature at the air outlet. The difference between it and the intake temperature (ΔT) must not exceed 86°F (30°C).

The flow rate at the outlet must correspond to the rates in the following table:



If one of the preceding points is not met, check that the installation was properly done following the guide's instructions. Otherwise check with our customer service (see the "Limited Warranty" section for the telephone numbers).

NOTE: Consider the air restriction of the outlet as a standard end outlet.

MAINTENANCE

NOTE: Cut the power to the device at the circuit breaker / fuse before repairing or cleaning the device.

It is recommended that you conduct a periodic visual inspection to spot any anomalies that might occur over time. For example: dust accumulation, signs of overheating on the coil frame, signs of water on the control unit, corrosion on the electrical connections.

ROUTINE MAINTENANCE

The only necessary routine maintenance consists of checking all the electrical connections at least once a year or season of use to make certain they are tight.

POINTS TO CHECK

- Check the tightness of connections.
- Check that there are no combustible materials in the duct.
- Check that there are no objects that might restrict air flow over the heating elements.

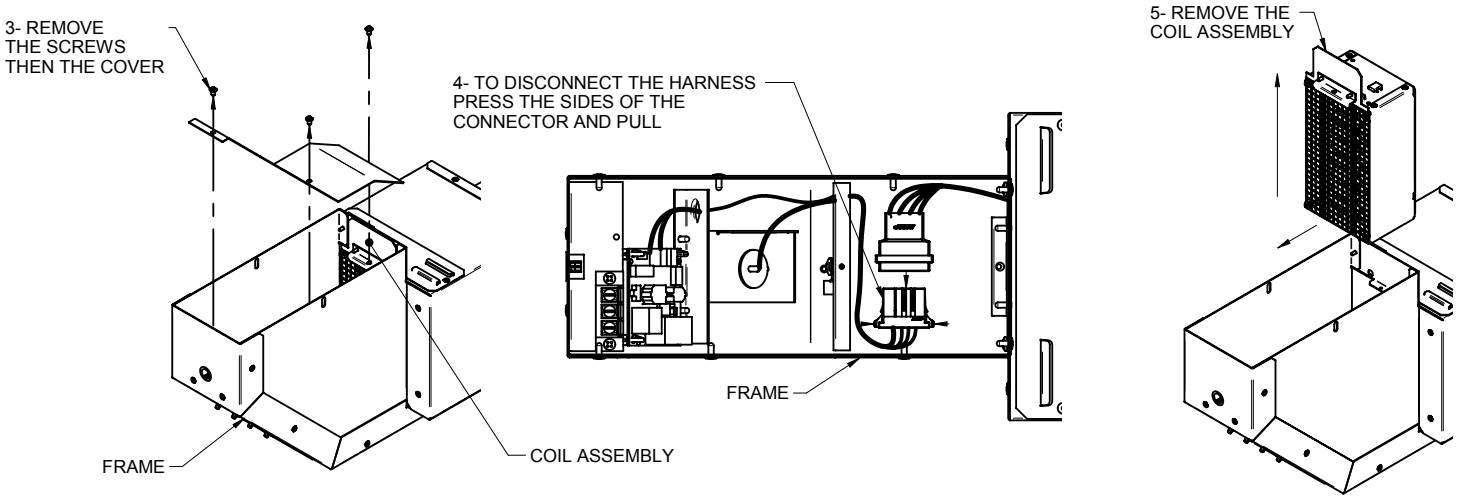
TROUBLESHOOTING

NOTE: Cut the power supply to the device at the circuit breaker / fuse before handling the device.

REPLACING AN INSERT

NOTE: Do not force the insert when removing or reinserting it. To remove the cable harness, do not pull on the wires; press on the sides of the harness.

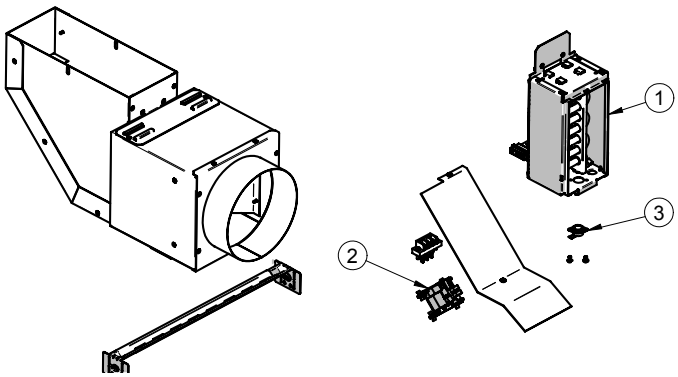
1. Make sure that the supply voltage (volts) corresponds to the one indicated on the rating plate.
2. Cut the power to the device at the circuit breaker / fuse before installing, repairing or cleaning the device.
3. to 5. Consult drawings below.



NOTE : To insert the coil assembly, do the opposite.

PROBLEM	DEFECTIVE PART OR PART TO CHECK
The heating boot does not start	- Tripped circuit breaker or fuse - Thermal protection activated - Inadequate power connection - Outside control (e.g., a thermostat) may be defective or improperly adjusted, positioned or connected
The heating boot is on but the elements are not working	- Outside control (e.g., a thermostat) may be defective or improperly adjusted, positioned or connected - Fuse link tripped - Automatic thermal protection tripped
The heating boot and ventilation run constantly	- Outside control defective or improperly adjusted, positioned or connected - Heat losses in the building exceed the device's heating capacity
The heating boot cycles when there is a heat demand	- Lack of ventilation - Obstructed air intake/outlet
The circuit breaker trips when the device is turned on	- Inadequate power connection - Power-source voltage higher than that specified on the rating plate - Insufficient circuit breaker capacity
The desired room temperature is never reached	- One or more defective elements - Outside control defective or improperly adjusted, positioned or connected - Power-source voltage lower than that specified on the rating plate - Heat losses in the building exceed the device's heating capacity - Automatic thermal protection is tripped

REPLACEMENT COMPONENTS LIST



ITEM	PART	DESCRIPTION
1	AEC-SEBXXXXXX*	COIL FOR DUCT HEATER*
2	CIR-016	CIRCUT BOARD FOR END BOOTH SERIES
3	PROT-188 PROT-189	THERMAL PROTECTOR 140°F (5 & 6 in. ducts) THERMAL PROTECTOR 160°F (4 in. duct)

* Consult manufacturer to obtain the correct replacement part number

STELPRO
360 comfort

USER AND INSTALLATION GUIDE

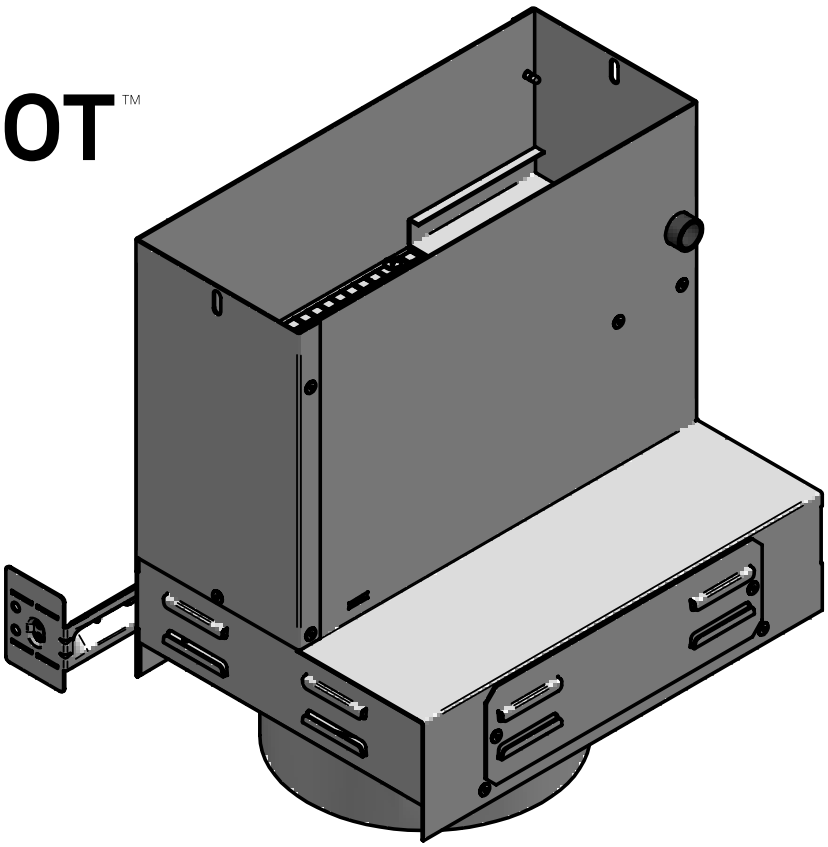
SUB SERIES

UNIVERSAL HEATING BOOT™

REPLACEMENT COMPONENT LIST INCLUDED

ECOBOOT™

PATENT PENDING



c UL us LISTED

This unit complies with CSA and UL standards

⚠ WARNING

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This product must be installed by a qualified person and connected by a certified electrician in compliance with current electricity and construction codes in your area.

Failure to follow these instructions may lead to physical injury, material harm, serious bodily harm and potentially fatal electric shock.

Protect the device using appropriate circuit breakers or fuses by referring to the rating plate.

Make certain that the supply voltage corresponds to the one indicated on the rating plate.

This device must be grounded.

Cut the power to the device at the circuit breaker / fuse before installing, repairing or cleaning the device.

Make certain that the device is designed for the planned use (if necessary, consult the product catalogue or a salesperson).

If the device's power is inadequate for the size of the home, it will operate non-stop, which will cause it to wear out prematurely.

Do not install the device in places where there are objects that may be damaged by heat.

At the initial start-up, or when turning it on after a long period of disuse, it is normal for the device to give off certain odours temporarily, as well as a thin, whitish smoke.

Do not allow objects or furniture such as – but not limited to – blankets, towels, a bed, a clothes hamper, clothing, paper, etc., to come in contact with the device, and keep them at a distance of at least 12 inches (30.5 cm) from the device. In addition, some materials are more sensitive to heat than others; therefore make certain that anything located close to the device will tolerate the heat it gives off.

⚠ WARNING

Follow the distances and positions mentioned in the installation section of this guide.

If the installer or user modifies the device in any way whatsoever, he will be held liable for any damage resulting from this modification, and the UL certification may be invalidated.

This device must not come in contact with a water source, such as – but not limited to – a shower, bathtub, sink, toilet, etc., and must be shielded from splashes. Do not use if any part has been submerged. In addition, this device must not be turned on or off when you have your feet in water or your hands are wet.

Since it becomes hot, this device poses risks even when it is operating normally. Be cautious, aware and attentive when you use it. To avoid burns, do not let exposed skin come in contact with the hot surfaces. Let the device cool down for a few minutes before handling (it stays hot for a certain period of time).

Never block the device's air intakes or outlets. Such blockage would cause overheating, which could cause a fire.

Do not insert foreign bodies into the device's air intakes and outlets, as this might damage it and cause electrical shock or a fire.

The device includes hot parts and may produce electric arcs (sparks). It is not designed to be used or stored in damp places or those containing flammable liquids, combustible materials or corrosive, abrasive, chemical or explosive products such as – but not limited to – paint, gasoline, chlorine and cleaning products.

Some places are dustier than others. There is a fire hazard if the product is not installed and cleaned according to these instructions. Accumulated dirt can cause the device to turn yellow or cause components to become defective.

If the thermal protection is activated, it means that the device has been subjected to abnormal operating conditions. If it remains active or goes on and off repeatedly, it is recommended that you have the device inspected by a qualified electrician or recognized repair centre to make certain it is not damaged (refer in advance to the terms of the limited warranty).

If this device is damaged or defective, cut off its power at the circuit breaker / fuse and have it repaired by a recognised repair centre (refer in advance to the terms of the limited warranty).

Make certain that the electrical connections are solid and that they have been adequately made. Pull on each of the wires to make certain there is no slack in the connector or terminal block. Failure to follow this instruction may cause a fire.

CAUTION

NEVER USE A STANDARD HEATING BOOT FOR AN APPLICATION WHERE THERE IS A RISK OF EXPLOSION.

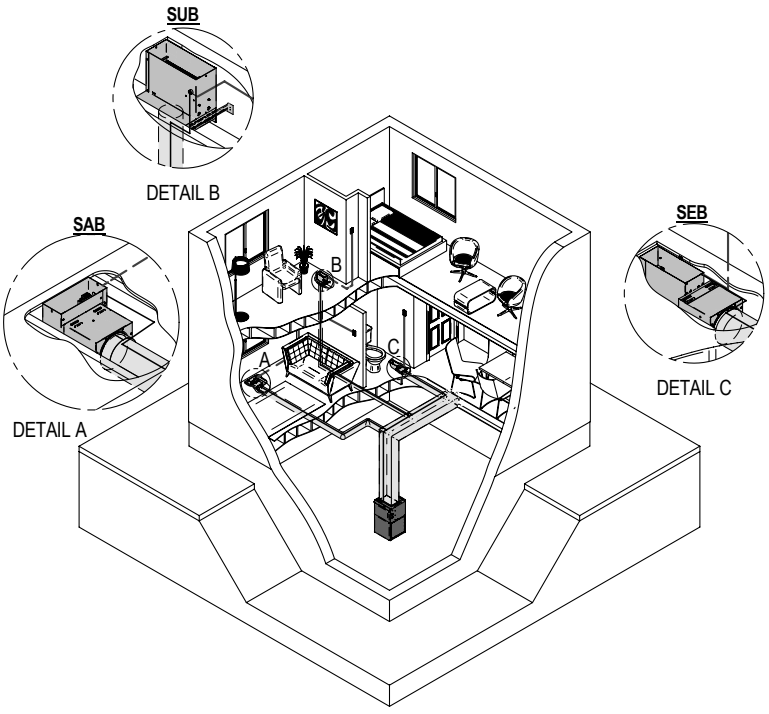
The air circulating in the duct where the heating boot is installed must not contain any combustible and/or flammable material.

NOTE ON THE ACCURACY OF THE INFORMATION CONTAINED IN THIS GUIDE

When some of the product's technical characteristics need to be modified in order to improve its ease of handling or other functions, priority goes to the technical characteristics of the product itself. In this case, this guide may not correspond completely to all the functions of this product. Consequently the product and its packaging, as well as name and illustration, may differ from those presented in this guide.

BRIEF PRODUCT DESCRIPTION

The product is a duct heater placed at the outlet of each air duct to heat the air coming from the main blower. The device allows the temperature of the rooms in a home to be adjusted independently of one another with the aid of a conventional 120/208/240/277 volt thermostat, so as to be able to lower the temperature in unused rooms and thereby save on heating costs. There are three differently shaped models that will fill the three most common assembly layouts in residential installations.



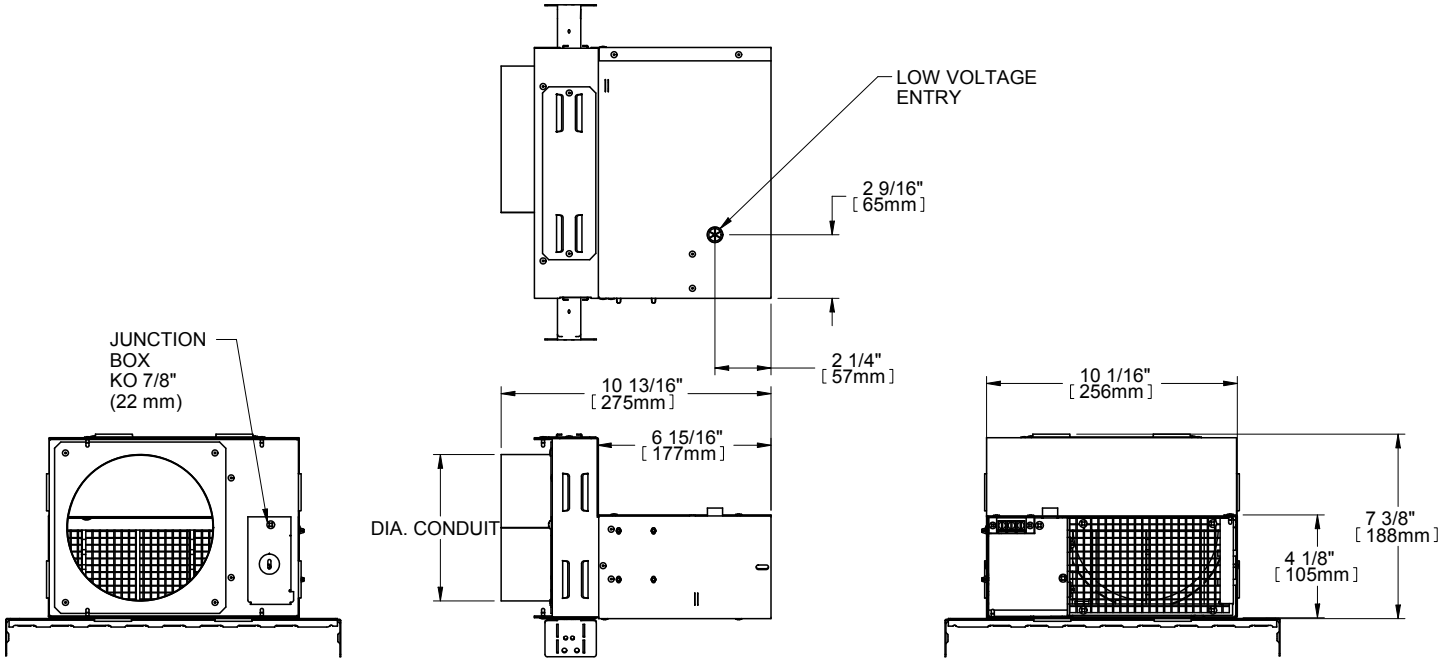
LIST OF MODELS

PRODUCTS	DUCT DIA.	WATTAGE	VOLTAGE
SUB040501	4"	500	120
SUB040751	4"	750	120
SUB050501	5"	500	120
SUB050751	5"	750	120
SUB060501	6"	500	120
SUB060751	6"	750	120
SUB040502	4"	375/500	208/240
SUB040752	4"	562/750	208/240
SUB041002	4"	750/1000	208/240
SUB041252	4"	937/1250	208/240
SUB050502	5"	375/500	208/240
SUB050752	5"	562/750	208/240
SUB051002	5"	750/1000	208/240
SUB051252	5"	937/1250	208/240
SUB051502	5"	1125/1500	208/240
SUB051752	5"	1312/1750	208/240
SUB052002	5"	1500/2000	208/240
SUB060502	6"	375/500	208/240
SUB060752	6"	562/750	208/240
SUB061002	6"	750/1000	208/240
SUB061252	6"	937/1250	208/240

PRODUCTS	DUCT DIA.	WATTAGE	VOLTAGE
SUB061502	6"	1125/1500	208/240
SUB061752	6"	1312/1750	208/240
SUB062002	6"	1500/2000	208/240
SUB040507	4"	500	277
SUB040757	4"	750	277
SUB041007	4"	1000	277
SUB041257	4"	1250	277
SUB050507	5"	500	277
SUB050757	5"	750	277
SUB051007	5"	1000	277
SUB051257	5"	1250	277
SUB051507	5"	1500	277
SUB051757	5"	1750	277
SUB052007	5"	2000	277
SUB060507	6"	500	277
SUB060757	6"	750	277
SUB061007	6"	1000	277
SUB061257	6"	1250	277
SUB061507	6"	1500	277
SUB061757	6"	1750	277
SUB062007	6"	2000	277

MECHANICAL DRAWINGS

MODEL	DUCT DIA.	WEIGHT
SUB04XXXX	4"	9 lbs
SUB05XXXX	5"	9 lbs
SUB06XXXX	6"	9 lbs



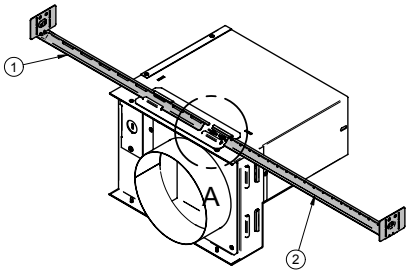
MECHANICAL INSTALLATION

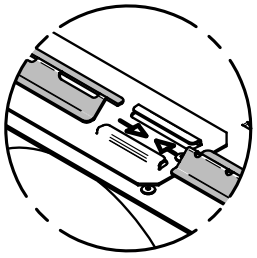
GENERAL INSTALLATION NOTES

- The terminal heating boot must always be installed so that the outlet (4-1/4 inches x 10-1/4 inches) is level with the floor/wall.
- The terminal heating boot must be the last component in an air duct, e.g. the outlet.
- The installation must be done using the sliding brackets provided.
- The hole for installation must measure 4-1/4 inches (108mm) x 10-1/4 inches (260mm).
- Do not place any filter at the heating boot outlet.

INSTALLING THE SLIDING BRACKETS

Install the sliding brackets by sliding them into the tracks provided for that purpose. The brackets must be superimposed on each other so that the bracket with the oblong holes (1) is on top of the bracket with the round holes (2).

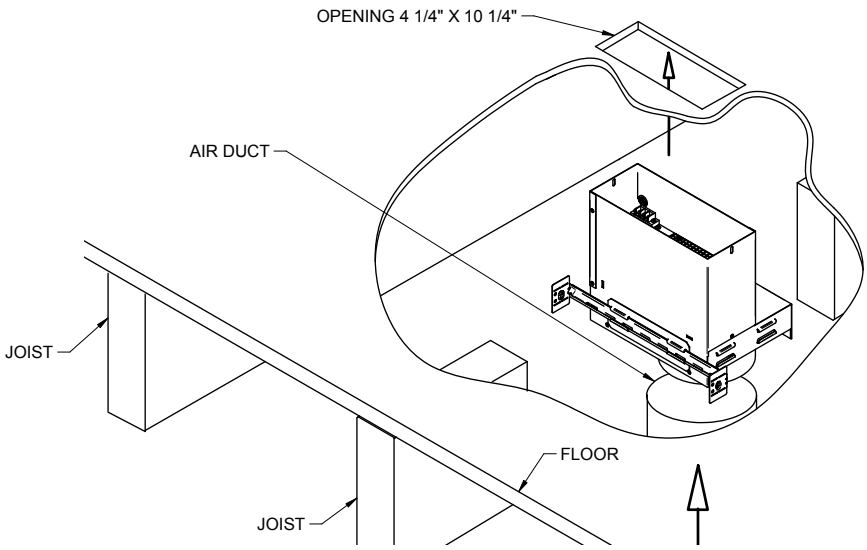




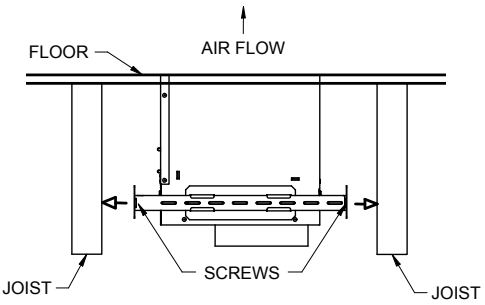
DETAIL A

MECHANICAL INSTALLATION OF THE PRODUCT

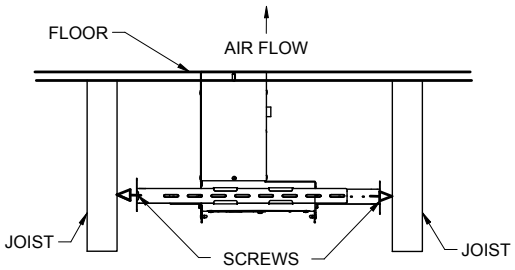
- Install under the floor, between the joists. (This product can also be installed on the wall)
- Slide the brackets up to the joists and fasten using the wood screws.
- THE BRACKETS MUST BE SHORTENED TO ACCOMMODATE INSTALLATION BETWEEN JOISTS SPACED LESS THAN 14 INCHES APART.

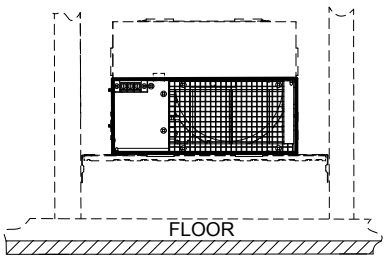


FLOOR AND WALL INSTALLATION

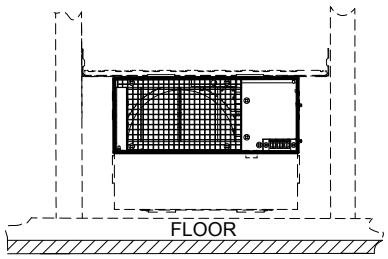


FLOOR INSTALLATION
DIFFERENT ORIENTATION





WALL INSTALLATION
BACK AIR INLET



WALL INSTALLATION
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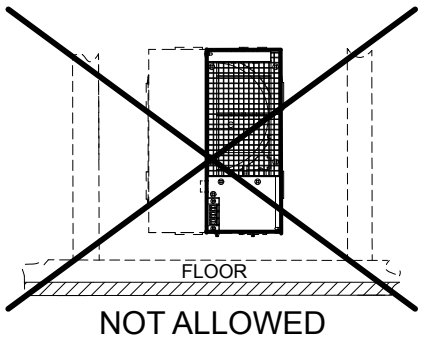

NOT ALLOWED

~~**WALL INSTALLATION**~~
~~BACK AIR INLET~~

~~CEILING INSTALLATION~~ - NOT ALLOWED

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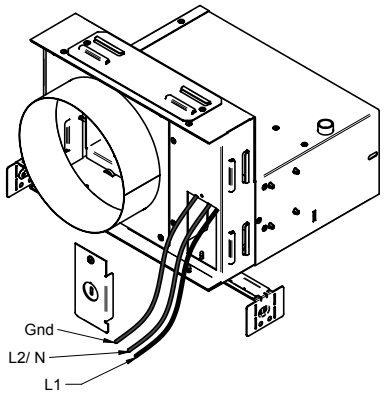

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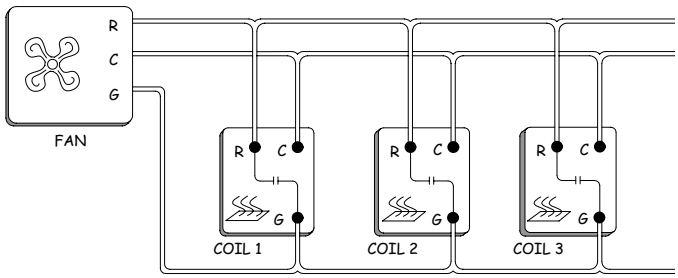

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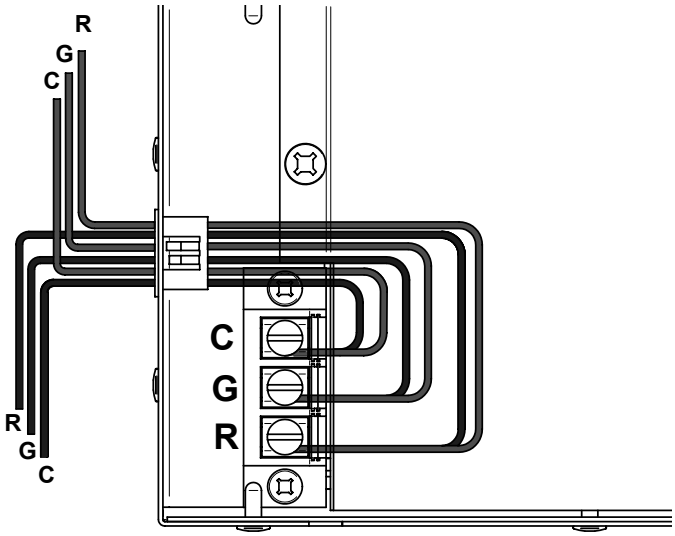

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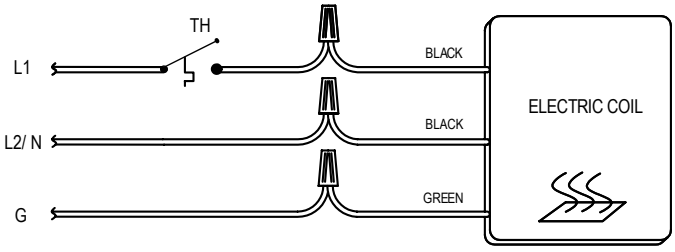
The electrical coil's power supply is controlled by the thermostat it is connected to. The elements are therefore turned on when the thermostat sends a heat request.

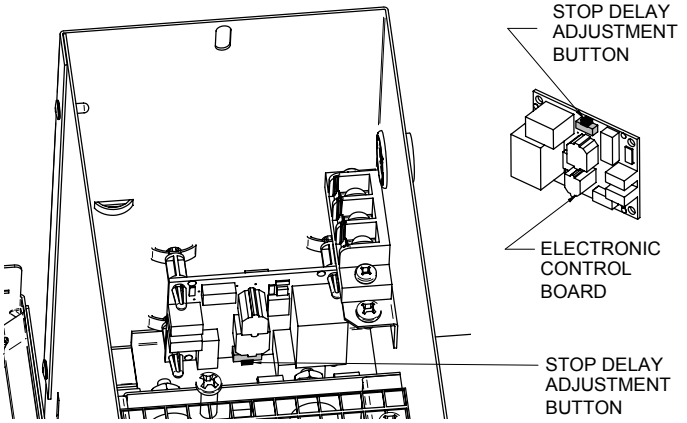


CONTROLLING THE FAN (LOW-VOLTAGE)

The fan's start control is provided by the electrical coil. The coil has an electronic board that detects when the element is turned on and sends a start command to the fan to provide ventilation for the element. Only one coil needs to be supplied with power in order for the fan to start.

There is a delay before the fan stops after the heat has been turned off by the thermostat. This delay can be set to one (1) or two (2) minutes using the sliding button located on the side of the electronic board.

NOTE: Cut the power supply to the device at the circuit breaker / fuse before handling the device.

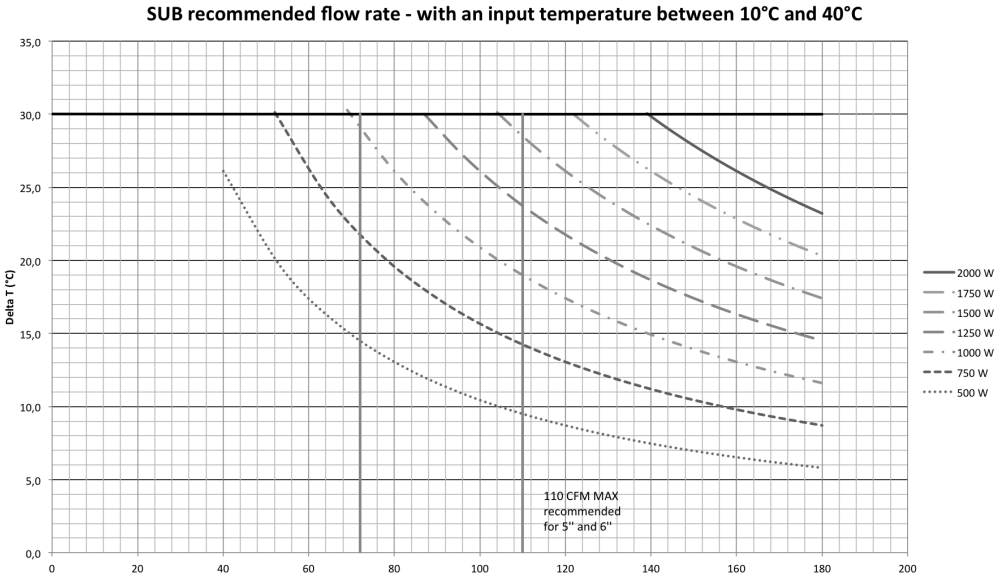


START

After installing all devices, make certain they are operating correctly by following these steps:

- Check the demand to the fan on each unit. Note that there may be a delay of up to 1 minute.
- Identify the maximum temperature at the air outlet. The difference between it and the intake temperature (ΔT) must not exceed 86°F (30°C).

The flow rate at the outlet must correspond to the rates in the following table:



If one of the preceding points is not met, check that the installation was properly done following the guide's instructions. Otherwise check with our customer service (see the "Limited Warranty" section for the telephone numbers).

NOTE: Consider the air restriction of the outlet as a standard univeral outlet.

MAINTENANCE

NOTE: Cut the power to the device at the circuit breaker / fuse before repairing or cleaning the device.

It is recommended that you conduct a periodic visual inspection to spot any anomalies that might occur over time. For example: dust accumulation, signs of overheating on the coil frame, signs of water on the control unit, corrosion on the electrical connections.

ROUTINE MAINTENANCE

The only necessary routine maintenance consists of checking all the electrical connections at least once a year or season of use to make certain they are tight.

POINTS TO CHECK

- Check the tightness of connections.
- Check that there are no combustible materials in the duct.
- Check that there are no objects that might restrict air flow over the heating elements.

TROUBLESHOOTING

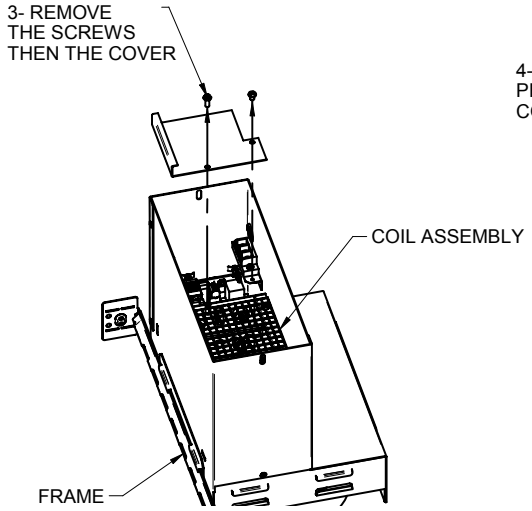
NOTE: Cut the power supply to the device at the circuit breaker / fuse before handling the device.

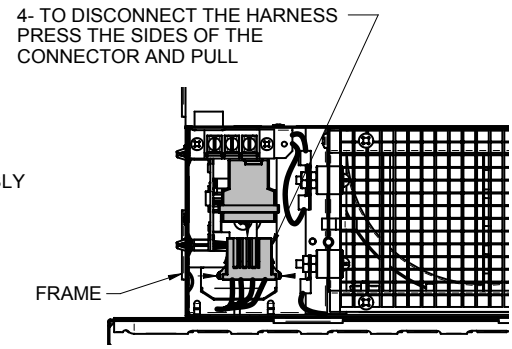
REPLACING AN INSERT

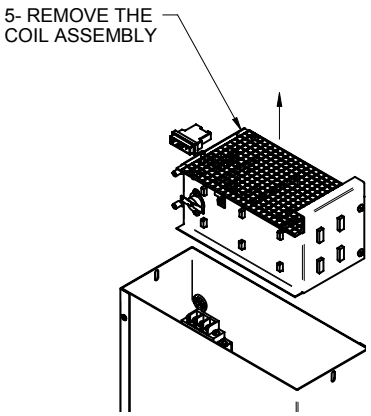
NOTE: Do not force the insert when removing or reinserting it. To remove the cable harness, do not pull on the wires; press on the sides of the harness.

1. Make certain that the supply voltage corresponds to the one indicated on the rating plate.
2. Cut the power to the device at the circuit breaker / fuse before installing, repairing or cleaning the device.

3. to 5. Consult drawings below.







NOTE : To insert the coil assembly, do the opposite.

PROBLEM	DEFECTIVE PART OR PART TO CHECK
The heating boot does not start	- Tripped circuit breaker or fuse - Thermal protection activated - Inadequate power connection - Outside control (e.g., a thermostat) may be defective or improperly adjusted, positioned or connected
The heating boot is on but the elements are not working	- Outside control (e.g., a thermostat) may be defective or improperly adjusted, positioned or connected - Fuse link tripped - Automatic thermal protection tripped
The heating boot and ventilation run constantly	- Outside control defective or improperly adjusted, positioned or connected - Heat losses in the building exceed the device's heating capacity
The heating boot cycles when there is a heat demand	- Lack of ventilation - Obstructed air intake/outlet
The circuit breaker trips when the device is turned on	- Inadequate power connection - Power-source voltage higher than that specified on the rating plate - Insufficient circuit breaker capacity
The desired room temperature is never reached	- One or more defective elements - Outside control defective or improperly adjusted, positioned or connected - Power-source voltage lower than that specified on the rating plate - Heat losses in the building exceed the device's heating capacity - Automatic thermal protection is tripped

REPLACEMENT COMPONENTS LIST

ITEM	PART	DESCRIPTION
1	AEC-SUBXXXX*	COIL FOR DUCT HEATER*
2	CIR-016	CIRCUT BOARD FOR END BOOTH SERIES
3	PROT-110	THERMAL PROTECTOR 130°

* Consult manufacturer to obtain the correct replacement part number