OPERATION INSTRUCTIONS FOR THE FLUSH FIT REGISTER BOOSTER™
READ AND SAVE THESE INSTRUCTIONS
IMPORTANT NOTICE

MODEL: HC500

With the use of any electrical appliance, it is important to observe all basic precautions to minimize the risk associated with use, such as electrical shock, fire, or injury to persons. Read these instructions before using your Flush Fit Register Booster™.

NEVER EXPOSE YOUR FLUSH FIT REGISTER BOOSTER™ TO TEMPERATURES OVER 140°F (60°C)

IMPORTANT WARNINGS

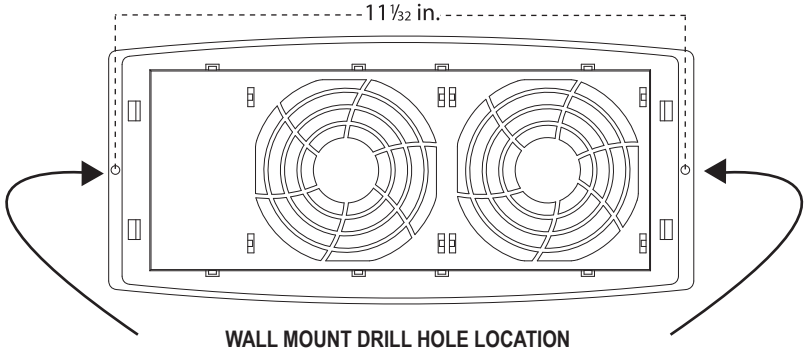
1. The Flush Fit Register Booster™ will be as warm as the air that is delivered from the register of your forced air furnace and/or cooling system. The maximum temperature for the register is 140° Fahrenheit or 60° Centigrade. Your Flush Fit Register Booster™ should never be exposed to higher temperatures or temperatures below freezing.
2. Do not in any way block the air grilles of the Flush Fit Register Booster™. Pressure on the bottom or top grilles of the Flush Fit Register Booster™ may cause the fan impeller to contact these grilles and damage the unit.
3. Unplug the Flush Fit Register Booster™ when not in use. Turn the unit off before unplugging.
4. Do not operate the Flush Fit Register Booster™ with a damaged plug or cord, if the unit malfunctions, becomes noisy when operating, has been dropped or otherwise damaged, or if the housing is damaged or broken. Discard or return the unit for inspection, replacement, or repair.
5. Do not run cord under carpeting. Do not cover cord with throw rugs, runners, or similar coverings. Do not route cord under furniture or appliances. Arrange cord away from traffic area and where it will not be tripped over.
6. The Flush Fit Register Booster™ should never be exposed to moisture. Do not use the unit in an open window, bathroom, or laundry area where it may come in contact with water.
7. The Flush Fit Register Booster™ is designed for indoor use only.
8. Never insert any object or allow any object to enter the Flush Fit Register Booster™ through the bottom or top grilles, as this may damage the unit or cause it to malfunction.
9. Do not use the Flush Fit Register Booster™ near flammables such as gasoline, paint, or natural gas.
10. The Flush Fit Register Booster™ is intended for use as described in the instructions only. Other use may cause fire, electrical shock, damage to the unit, or injury to persons and will void any warranty by the manufacturer.
11. Do not use strong detergents or flammable liquids to clean the Flush Fit Register Booster™.
12. The housing of your Flush Fit Register Booster™ is sealed at the factory. THERE ARE NO SERVICEABLE PARTS INSIDE. Attempting to open the housing will expose you to dangerous electricity, may cause fire and will void any and all warranty.

INSTALLATION

DO NOT INSTALL IN CEILING.

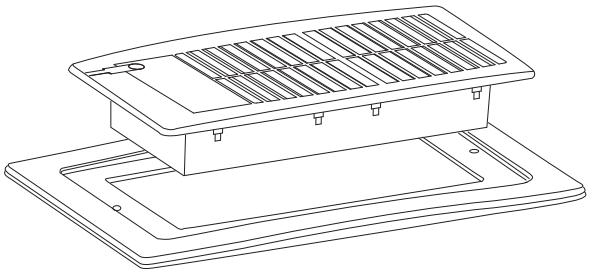
(4" X 10") WALL REGISTER APPLICATIONS

1. Drill (two) holes with a 3/16" drill bit from the bottom side of the Flush Fit Register Booster™ grille. The holes should be drilled in the pre-molded location as pictured below.
2. Secure the Flush Fit Register Booster™ in place.



WALL MOUNT DRILL HOLE LOCATION

FITS 10" X 4" FLOOR & WALL REGISTERS



ADAPTOR PLATE SOLD SEPARATELY FOR REGISTERS UP TO 12"X6"

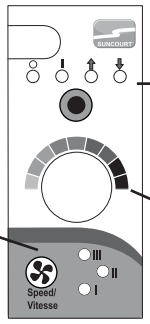
CLEANING AND MAINTENANCE

Before cleaning the Flush Fit Register Booster™ disconnect the power cord from the outlet. Dust may be removed from the exterior surfaces using a soft cloth, the round brush attachment of your vacuum cleaner, or a cloth that has been lightly moistened with water and a mild, non-abrasive detergent. Dust accumulation in the interior of the unit may be removed by using the small round brush attachment of your vacuum cleaner. Accumulation of dust in the interior will be minimized by regular replacement of your furnace filter as recommended by the manufacturer.

ONE YEAR LIMITED WARRANTY

Subject to the following limitations, Suncourt Inc. (manufacturer) warrants that the Flush Fit Register Booster™ will, for 1 (one) year from date of original retail purchase, but not exceeding 2 (two) years from date of manufacture, remain free from appearance of defects in workmanship or materials. This warranty is subject to the following limitations: (a) manufacturer's liability is limited to the replacement or repair of the unit, as decided by the manufacturer; (b) a defective unit must be returned, prepaid, with proof of purchase, well packaged to avoid damage in transit; and (c) this warranty does not apply to defects resulting from the alteration, abuse, accidental damage, unauthorized repair, or misuse of the unit. This warranty is given in lieu of all other warranties, guarantees, and conditions on manufacturer's part, and the manufacturer shall have no tortious or other liability in respect to this Flush Fit Register Booster™. Ship unit to Suncourt Inc. only after obtaining a Return Goods Authorization (RGA) number. Returns without this RGA number will not be accepted. Actual product appearance may differ from illustrations. Suncourt reserves the right to modify any or all of its products' features, designs, components and specifications without notice.

OPERATION SETTINGS



Speed Adjustment:
Press the fan speed button to toggle from low, medium and high speed.

Press mode button to select operation:
○ to stop operation.
❙ for continuous running.
⇑ for automatic on/off to boost warm air.
⇓ for automatic on/off to boost cool air.

The rotary Set Point knob selects the automatic on/off temperature setting for both heating and cooling.

HEAT-COOL SETTING LOGIC

This device is designed to turn on and off from temperature rise and fall. If you want the Flush Fit Register Booster™ to turn on with warm air from your furnace set the mode to HEAT (↑). If you want the Flush Fit Register Booster™ to turn on with cool air from the A/C set the mode to COOL (↓). In either mode the fans will start when the temperature rises/falls above/below the setpoint. The fans will stop when the sensor detects the end of the heating/cooling cycle or if the temperature returns to the initial setpoint (which ever occurs first). The setpoint is not adjusted to room temperature, but is instead adjusted to the warmer or cooler air temperature from your ductwork during a forced-air cycle.

The Flush Fit Register Booster™ will operate properly if your whole-home thermostat fan mode is set to "on", but it is best to set your thermostat fan mode to "auto" during the initial setup procedure described below. It is also necessary that your whole-home thermostat is at a consistent temperature setting during the HC500 temperature adjustment / verification and also for 2-3 cycles prior to making your initial adjustments.

Temperature adjustments should be made with the highest booster fan speed selected so that verification of operation in steps 9 and 11 is readily apparent.

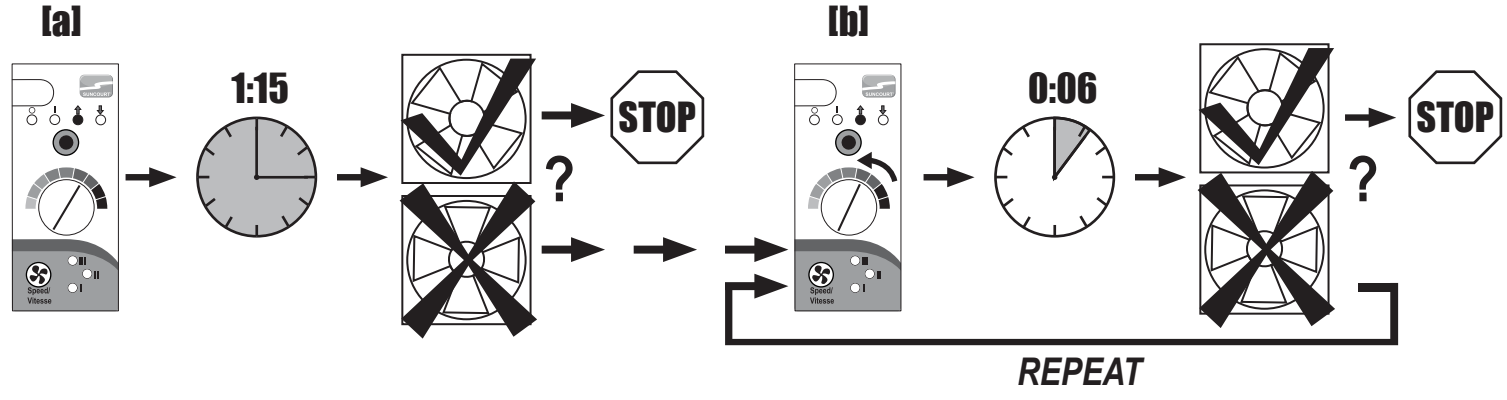
STEPS FOR HEATING MODE

When the red HEAT (↑) light is on the Flush Fit Register Booster™ will turn on as temperature rises. Allow your unpacked unit to acclimate to room temperature for at least 1 hour as noted in step 5 below.

1. Start the operation settings before the Flush Fit Register Booster™ is installed in the register boot.
2. Insert the small end of the power supply cord into the receptacle on the Flush Fit Register Booster™. Plug the power supply into your 110V outlet. Additional length can be added to the power supply cord using a 2.1mm ID / 5.5mm OD low-voltage extension cord.
3. Press the mode button until the OFF light is lit. The OFF light will dim 4 seconds after this mode selection is confirmed.
4. Turn the rotary setpoint dial clockwise until it stops. DO NOT FORCE.
5. Keep the unit away from the existing register's warm airstream and allow the unit to acclimate to room temperature for 1 hour.
6. Place the Flush Fit Register Booster™ into the register opening only when the furnace blower is not operating.
7. Press the mode button twice. The red HEAT (↑) light will be lit and the booster fans will not be operating.
8. Wait for your furnace to turn on. **(Do not adjust heat settings to force on.)** Allow 60 seconds of furnace blower operation before proceeding to next step. (Allow 120 seconds for a heat pump system)
9. Slowly turn the rotary setpoint dial counterclockwise in a continuous motion until the fans turn on. Stop turning the knob immediately once the booster's fans begin to operate. At the ideal pace, the dial should move across one "square" every 6-8 seconds.
10. The Flush Fit Register Booster™ is now set to turn on when the air from the central furnace reaching the register is sufficiently warm.
11. Allow the furnace cycle to end naturally and observe that the fans turn off. If your furnace has a 'purge' cycle (60 seconds of blower operation after heating has stopped), the fans should stop toward the end of the purge cycle or several seconds later. If your furnace does not have a purge cycle, the fans will continue operating after the blower has ended until the air in the ductwork is no longer warm.
12. Observe the next furnace cycle and make note of when the Flush Fit Register Booster™ fans turn on.

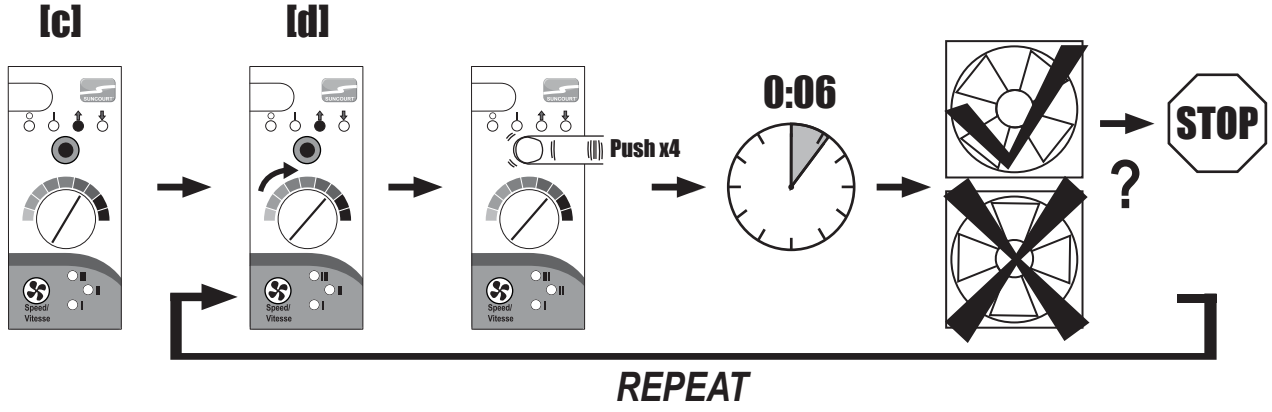
IF FAN DOES NOT TURN ON WITHIN 75 SECONDS

12a. If the fans do not start soon enough (within 75 seconds of central blower operation), make note of the dial position [a]. Move the dial slightly more counter clockwise [b] to choose a lower starting temperature setpoint (closer to room temperature). Make very small adjustments and wait 6-8 seconds after each adjustment to observe if the booster's fans turn on during this furnace cycle.



IF FAN DOES NOT TURN ON

12b. If the booster fans do not turn on after making several adjustments this is because the initial temperature setting was too close to room temperature. You will need to set a higher starting temperature setpoint. To do this, return to your original dial position [c] and move the knob slightly more clockwise [d]. Now press the mode button repeatedly to quickly cycle through all modes and return to heat mode. This effectively 're-sets' the temperature logic. Your booster fan should turn on after 6-8 seconds. If it does not, turn the knob slightly more clockwise and cycle through the modes again. This reset/adjustment procedure can be done repeatedly and does not require that you remove the unit from its operating location.



HELPFUL TIP

You can re-visit step 12 as needed to find your ideal starting temperature. A setpoint closer to room temperature will activate the booster fans sooner after the furnace starts. But a setpoint that is too close to room temperature will not allow the HC500 to operate.

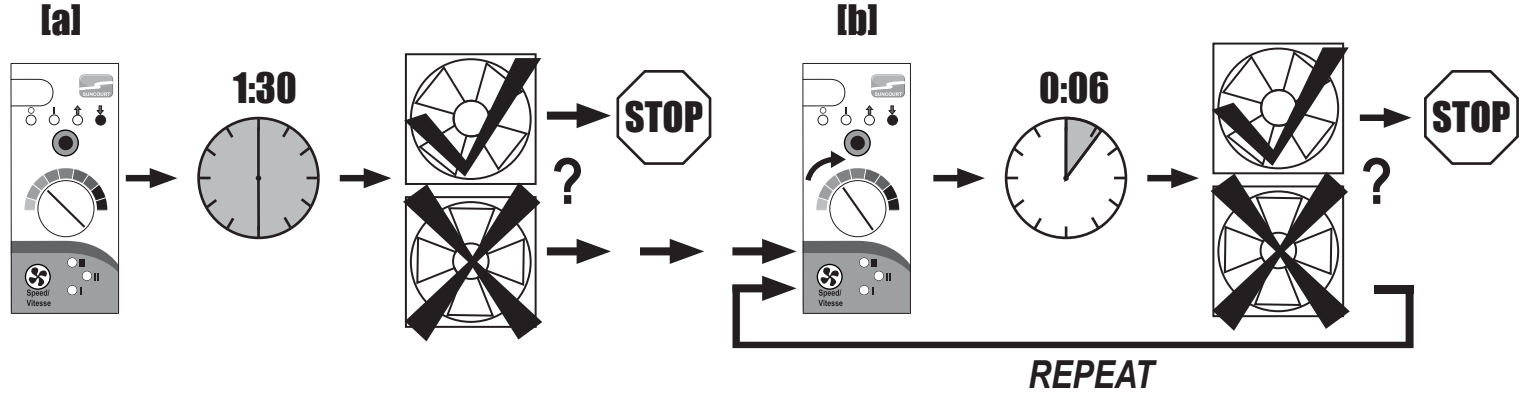
STEPS FOR COOLING MODE

When the blue COOL (↓) light is on the Flush Fit Register Booster™ will turn on as temperature drops. Allow your unpacked unit to acclimate to room temperature for at least 1 hour as noted in step 6 below.

1. Start the operation settings before the Flush Fit Register Booster™ is installed in the register boot.
2. Insert the small end of the power supply cord into the receptacle on the Flush Fit Register Booster™. Plug the power supply into your 110V outlet. Additional length can be added to the power supply cord using a 2.1mm ID / 5.5mm OD low-voltage extension cord.
3. Press the mode button until the OFF light is lit. The OFF light will dim 4 seconds after this mode selection is confirmed.
4. Turn the rotary setpoint dial counter-clockwise until it stops. DO NOT FORCE.
5. Keep the unit away from the existing register's cool airstream and allow the unit to acclimate to room temperature for 1 hour.
6. Place the Flush Fit Register Booster™ into the register opening only when the air conditioning system is not operating.
7. Press the mode button three times. The blue COOL (↓) light will be lit and the fans will not be operating.
8. Wait for your air conditioning to start after an ordinary call from your whole home thermostat. Allow 75 seconds of central blower operation before proceeding to next step.
9. Slowly turn the rotary setpoint dial clockwise in a continuous motion until the fans turn on. Stop turning the knob immediately once the booster's fans begin to operate. At the ideal pace, the dial should move across one "square" every 6-8 seconds.
10. The Flush Fit Register Booster™ is now set to turn on when the air from the A/C reaching the register is sufficiently cool.
11. Allow the A/C cycle to end and observe that the fans turn off. If your central blower has a 'purge' cycle (60 seconds of blower operation after cooling has stopped), the fans should stop toward the end of the purge cycle or several seconds later. If your central blower does not have a purge cycle, the fans will continue operating after the blower has ended until the air in the ductwork is no longer cool.
12. Observe the next A/C cycle and make note of when the Flush Fit Register Booster™ fans turn on.

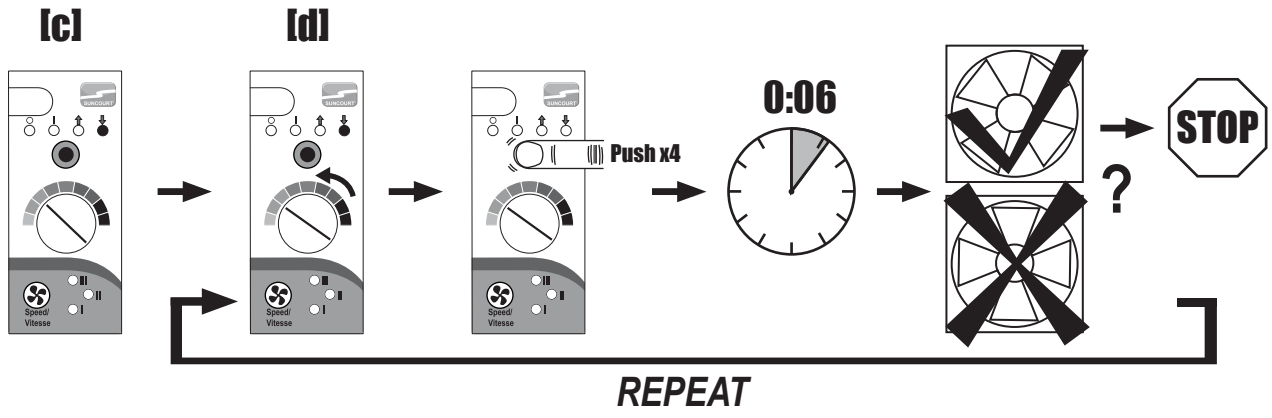
IF FAN DOES NOT TURN ON WITHIN 90 SECONDS

12a. If the fans do not start soon enough (within 90 seconds of central blower operation), make note of the dial position [a]. Move the dial slightly more clockwise [b] to choose a higher starting temperature setpoint (closer to room temperature). Make very small adjustments and wait 6-8 seconds after each adjustment to observe if the booster's fans turn on during this air-conditioning cycle.



IF FAN DOES NOT TURN ON

12b. If the booster fans do not turn on after making several adjustments this is because the initial temperature setting was too close to room temperature. You will need to set a lower starting temperature setpoint. To do this, return to your original dial position [c] and move the knob slightly more counter-clockwise [d]. Now press the mode button repeatedly to quickly cycle through all modes and return to cool mode. This effectively 're-sets' the temperature logic. Your booster fan should turn on after 6-8 seconds. If it does not, turn the knob slightly more counter-clockwise and cycle through the modes again. This reset/adjustment procedure can be done repeatedly and does not require that you remove the unit from its operating location.



HELPFUL TIP

You can re-visit step 12 as needed to find your ideal starting temperature. A setpoint closer to room temperature will activate the booster fans sooner after the A/C starts. But a setpoint that is too close to room temperature will not allow the HC500 to operate.

To reduce observable noise, select the lowest booster fan speed that adequately delivers the required air to the room.

The Flush Fit Register Booster™ will help to maintain an ideal temperature in your otherwise problematic room. Since the initial temperature settings were made under less-than-ideal conditions, you may find after several days that the start time of the booster fans relative to the central blower starting has changed since your initial adjustments. This is especially true in cases where the overall improvement in room temperature is more pronounced. If necessary, revisit step 12 for either mode to adjust your booster to the improved room conditions.

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