

Please take note that this manual uses the following symbols to emphasize particular information:

⚠ WARNING
Identifies an instruction which, if not followed, might cause serious personal injuries including possibility of death.

CAUTION
Denotes an instruction which, if not followed, may severely damage the unit and/or its components.

💡 Indicates a supplementary information that may relate to optional parts or simply aim to facilitate a task.

⚠ WARNING

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSON(S) OBSERVE THE FOLLOWING:

1. Use this unit only in the manner intended by the manufacturer. If you have questions, contact the manufacturer.
2. Before cleaning this unit, turn off the power to the AHU at service panel. (Powered by AHU)
3. This unit is not designed to provide combustion and/or dilution air for fuel-burning appliances.
4. Installation work must be done by qualified person(s) in accordance with all applicable codes and standards, including fire-rated construction.
5. When cutting or drilling into a wall or ceiling, do not damage electrical wiring and other hidden utilities.

1. PREPARATION

Before you start:

Choose the best location and installation type for the FIN-6MD according to the current system. Ducting widely affects the performance of this type of device. Use the shortest, straightest duct run possible to maximize the results.

CAUTION
Do not install in an area where the temperature may exceed 160°F.

The installer shall ensure that, if necessary, an in-line heater sized according to the required airflow and outside design heating temperature from Manual J or ASHRAE table is installed to ensure that the air delivered to the AHU is never below the minimum temperature allowed by the manufacturer. The in-line heater shall have an integrated airflow sensor and an over temperature sensor to prevent heating in no-flow or low-flow conditions.

When deciding if a preheater is required and whether it should be installed BEFORE or AFTER the FIN-6MD, consider the following:

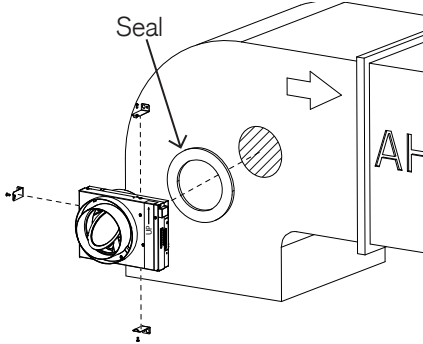
- The FIN-6MD's minimum operating temperature is -4°F.
- The temperature distributed to the AHU should never be below the temperature recommended by the AHU manufacturer.
- The minimum distance between the preheater and the FIN-6MD is 12 inches.

2. INSTALLATION

Always respect the orientation of the FIN-6MD and the direction of the airflow, as indicated on the unit.

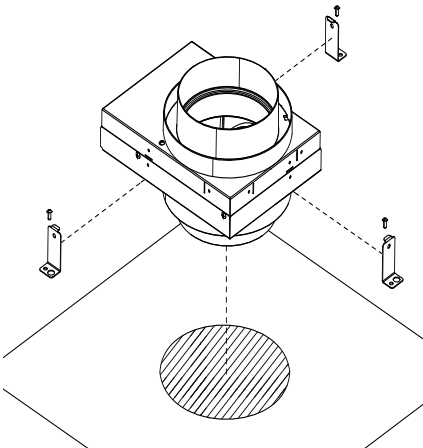
Direct-to-AHU is the fastest and easiest method:

1. Make a 6-inch diameter hole in the return duct of your AHU.
 2. Install the seal on the FIN-6MD port that will insert the AHU ducting. Make sure that the direction of the airflow indicated on the unit is respected.
 3. Install the 3 installation brackets on the unit, as illustrated.
 4. Mark and drill holes for the brackets on the AHU ducting and, using appropriate screws, secure the FIN-6MD to the duct of the AHU, making sure it is level horizontally.
- 💡 Use self-drilling screws (not included) to avoid marking and drilling steps.
5. Follow steps in section 3 to connect the insulated duct to the FIN-6MD.
 6. Perform the electrical connection to the AHU following the wiring diagram in section 4.

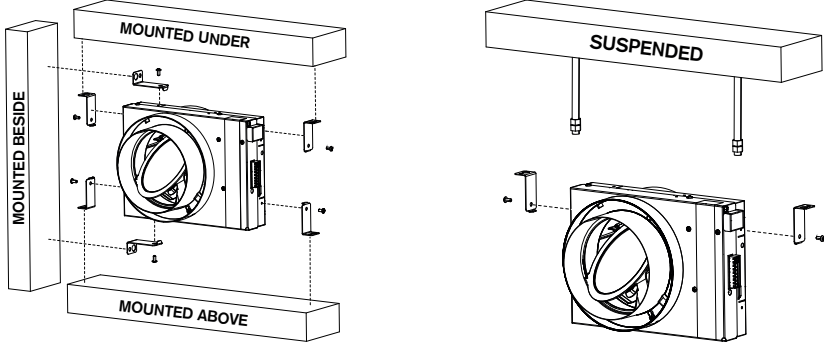


Through a horizontal surface:

1. Make a hole in the surface that the duct will run through. Size the hole so that the vapor barrier of the insulated ducting is not damaged, and the insulation not compressed.
2. Install the 3 installation brackets on the unit, as illustrated.
3. Run a piece of insulated duct through the hole and connect to the FIN-6MD following the steps in section 3. Make sure the direction of the airflow as indicated on the unit is respected.
4. Push the excess ducting on the other side of the surface and, using appropriate screws, secure the FIN-6MD to the surface.
5. Run the insulated duct to the AHU and connect to the AHU ducting, making sure that the vapor barrier sealing is leak-free.
6. Follow steps in section 3 to connect the second insulated duct to the FIN-6MD.
7. Perform the connections to the AHU following the wiring diagram in section 4.



Mounted under, above or beside a structure:



1. Install 2 installation brackets on the unit, as illustrated, according to the surface the unit will mount to.
2. Using appropriate screws, secure the FIN-6MD to the structure, making sure it is level horizontally. Make sure the direction of the airflow as indicated on the unit is respected.
3. Follow steps in section 3 to connect both insulated ducts to the FIN-6MD.
4. Run the insulated duct to the AHU and connect to the AHU ducting, making sure that the vapor barrier sealing is leak-free.
5. Perform the connections to the AHU following the wiring diagram in section 4.

6. When cleaning or performing installation of this unit, it is recommended to wear safety glasses and gloves.
7. When applicable local regulation comprises more restrictive installation and/or certification requirements, the aforementioned requirements prevail on those of this document and the installer agrees to conform to these at his own expense.
8. The unit must be mounted at least 3.3 feet (1.0 meter) away from any accessible opening of the duct.
9. Must be powered using a Class 2 transformer rated 10VA or higher.

CAUTION

1. Please read specification label on product for further information and requirements.
2. Do not intake air into spaces within walls or ceiling or into attics, crawl spaces, or garage. Do not attempt to recover the exhaust air from a dryer or a range hood.
3. Intended for residential installation only in accordance with the requirements of NFPA 90B.
4. When leaving the house for a long period of time (more than two weeks), a responsible person should regularly check if the unit operates adequately.
5. At least once a year, the unit mechanical and electronic parts should be inspected by qualified service personnel.
6. Since the electronic control system of the unit uses a microprocessor, it may not operate correctly because of external noise or very short power failure. If this happens, turn power off at AHU service panel and wait approximately 10 seconds. Then, restore the power to the unit.
7. Outdoor intake hood must be weather tight and comprise a bird screen.
8. Should you decide to dispose of this unit or of parts of it, do so in accordance with local laws and regulation.

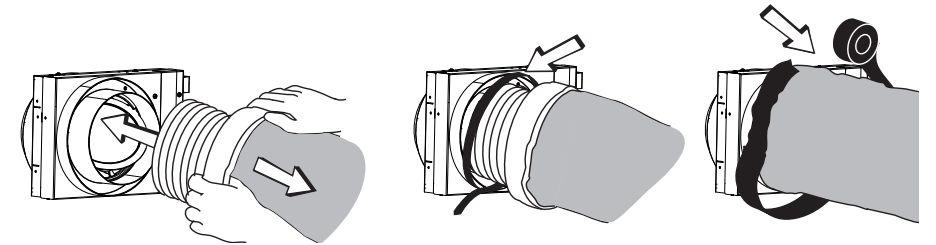
3. CONNECTING THE INSULATED DUCTS TO THE UNIT

CAUTION
Always use insulated ducting of a minimum R-4 insulation factor.

1. Slide the inner flexible duct over the port and secure it using a tie wrap.
2. Pull the insulation over the flexible duct and port without compressing it.
3. Use duct tape to seal the outer membrane of the insulated duct to the outer ring of the port.

⚠ WARNING
Make sure the outdoor intake hood is at least 18 inches above the ground and 6 feet away from any of the following: Dryer exhaust, high-efficiency furnace vent, central vacuum vent, gas meter exhaust, gas barbecue-grill, any exhaust from a combustion source, garbage bin and any other source of contamination.

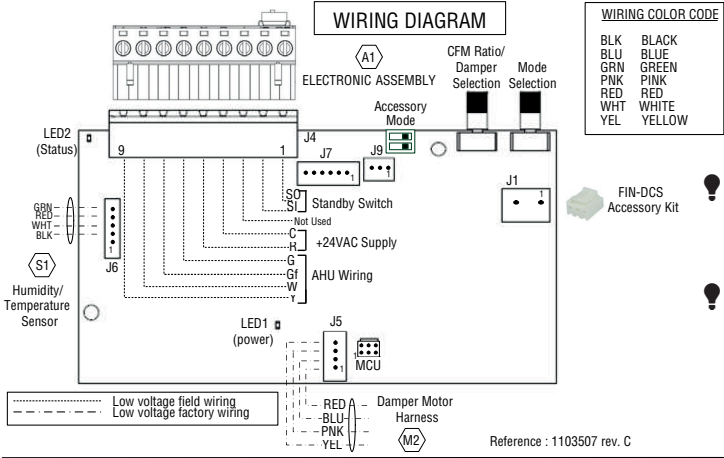
- 💡 Make sure that the outdoor intake hood is easily accessible for annual maintenance. If located above the first floor, place it close to a window or balcony to allow easy access.



4. WIRING DIAGRAM

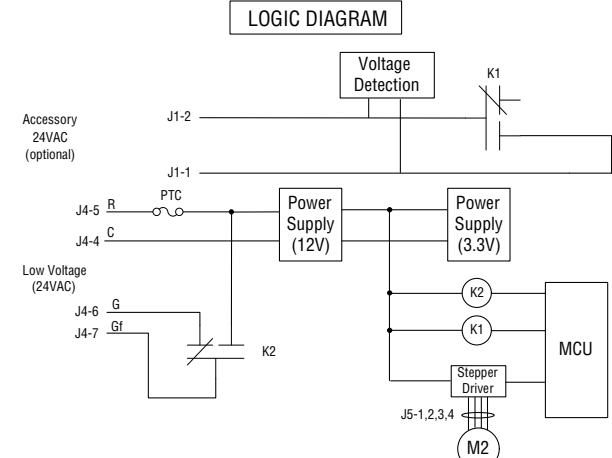
⚠ WARNING
Risk of electric shock. Electrical wiring must be done by qualified personnel in accordance with all applicable codes and standards. Before connecting wires, switch off the power to the AHU at service panel and lock service disconnecting means to prevent power from being switched on accidentally.

CAUTION
Faulty connections can cause damage to the AHU, to the thermostat and/or to this unit. Always double check connections before turning power back on.



- 💡 The terminal block can be removed for easier connection.

- 💡 Use the included tie wrap and the loop above the terminal block to secure the wires and reduce the risk of broken connections.



AHU wiring next page

For complete warranty statement, and to register your product online, go to www.broan-nutone.com.

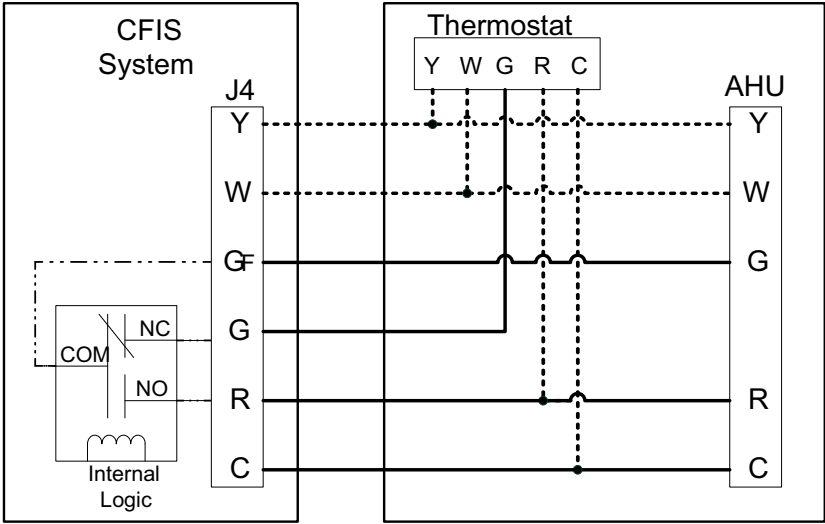
READ AND SAVE THESE INSTRUCTIONS



Scan to view our installation video.



AHU Wiring Options



Ref. : 1103507 rev. C

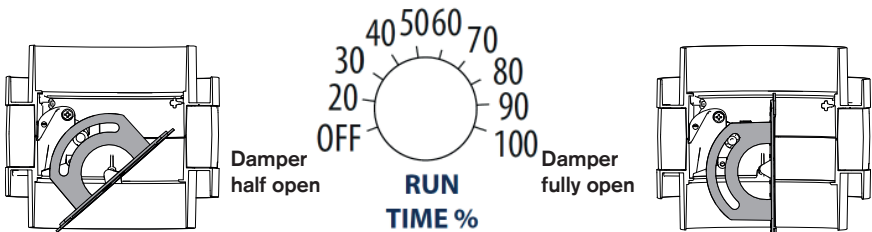
- Mandatory Installation Wiring
- - - CFIS Internal Hard Connections
- Optional Installation Wiring for Synchronization

Synchronize the FIN-6MD operation with the heating and cooling run-time to prevent unnecessary central fan operating time (refer to the dotted lines in the above diagram).

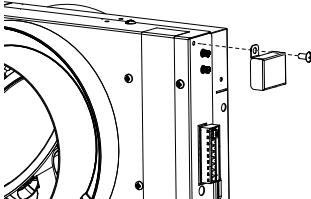
5. SETTING UP THE UNIT

When powered ON, the FIN-6MD performs a 30-second booting sequence followed by a 30-minute period where is stays OFF, but will activate if a heating or cooling call is sent to the AHU. Refer to local building codes to determine the required airflow.

1. Doublecheck the wiring, and turn power back ON to the AHU.
2. Set the thermostat to send a heating or cooling call, or jump R and Y on the terminal block. This will force the ventilation ON for at least 5 minutes.
3. Measure the airflow.
If it needs adjustment, perform steps 4. If the airflow does not need adjustment, go to step 5.
4. The damper is factory set to fully open position. To adjust it, set the left pot to **DAMPER ADJUSTMENT** to start the AHU blower, and wait 5 seconds. The LED will blink continuously to indicate the unit is in DAMPER ADJUSTMENT mode. While measuring the airflow, adjust the damper using the RUN TIME % pot until you've reached the desired value.



5. Select the desired mode according to the table and map in section 7.3. Doing so also saves the damper adjustment made in the previous step if applicable.
6. Set the RUN TIME % pot.
$$\text{Run time \%} = \frac{\text{Required Airflow}}{\text{Measured Airflow}}$$
 Example : $\text{Run Time \%} = \frac{60 \text{ CFM}}{120 \text{ CFM}} = 50\%$
7. Install the supplied cover to protect the adjustment pots and prevent an accidental change of settings. Note that the hole may be hidden by the label.



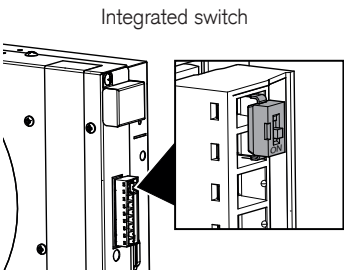
6. TESTING

When powered ON, the FIN-6MD performs a 30-second booting sequence followed by a 30-minute period where it stays OFF, but will activate if a heating or cooling call is sent to the AHU.

6.1 BLOWER DOOR TEST (FORCE THE DAMPER CLOSED)

If the access to the integrated switch OR to the remote switch (if applicable) is **easy**, set the integrated switch OR remote switch to OFF.

- If the access to the switch is **not easy**, such as in an attic:
1. Turn OFF the power to the AHU at the service panel.
 2. Turn the power to the AHU back ON at the service panel.
 3. Wait 30 seconds for the booting sequence to execute.
 4. Make sure that the thermostat will not send a heating or cooling call.
 5. Unit is OFF with its damper closed for 30 minutes, but will activate if a heating or cooling call is sent to the AHU.



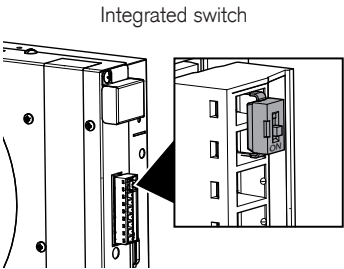
6.2 VENTILATION TEST (FORCING THE UNIT ON):

1. Turn OFF the power to the AHU at the service panel, and make sure that the integrated or remote switch is set to ON.
2. Turn the power back ON at the service panel.
3. Wait 30 seconds for the booting sequence to execute.
4. Set the thermostat to send a heating or cooling call, **or** jump R and Y on the terminal block. This will force the ventilation ON for at least 5 minutes.

7. USER INFORMATION

7.1 INTEGRATED AND REMOTE SWITCHES

This unit is equipped with an integrated ON/OFF switch. For more convenience, your FIN-6MD can also be connected to a remote switch. To use a remote switch, disconnect the integrated switch and connect the remote switch in the same manner that the integrated one was connected.



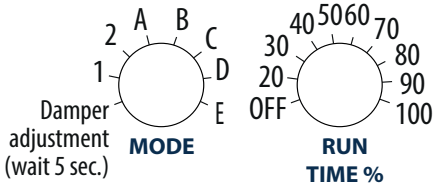
7.2 USER SERVICING INSTRUCTIONS

- Inspect the outdoor air intake at least once a year.
- These recommendations may change according to the environmental conditions in your area.

7.3 COMFORT MODE

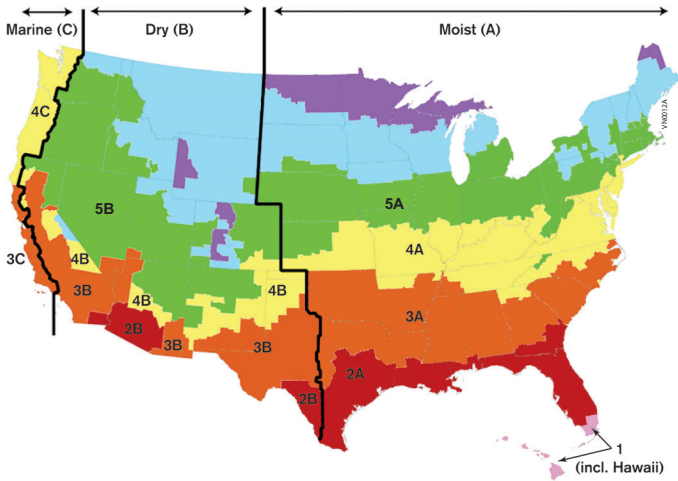
Should the air inside your house become too humid, or if such conditions want to be prevented, the operation mode of your FIN-6MD can be changed from a Code-Compliant one (modes 1 and 2) to a Comfort Mode (modes A to E). Refer to the map below to make the right choice.

When making such change, make sure to only change the Mode and to leave the Run time % as it was set by your installer. If in doubt, refer to your HVAC contractor.



Selected mode*	Climate Zones**
1 - Ashrae 2010/IRC/IMC (factory set)	Zones 1-5
2 - Ashrae 2016/2019	Zones 1-5
A - Comfort mode Hot / Humid #1	Zones 2A and 1
B - Comfort mode Hot / Humid #2	Zones 1 and 2A
C - Comfort mode Hot / Dry	Zone 2B
D - Comfort mode Mixed / Humid	Zones 3A, 4A, 5A, 3C and 4C
E - Comfort mode Mixed / Dry	Zones 3B, 4B and 5B

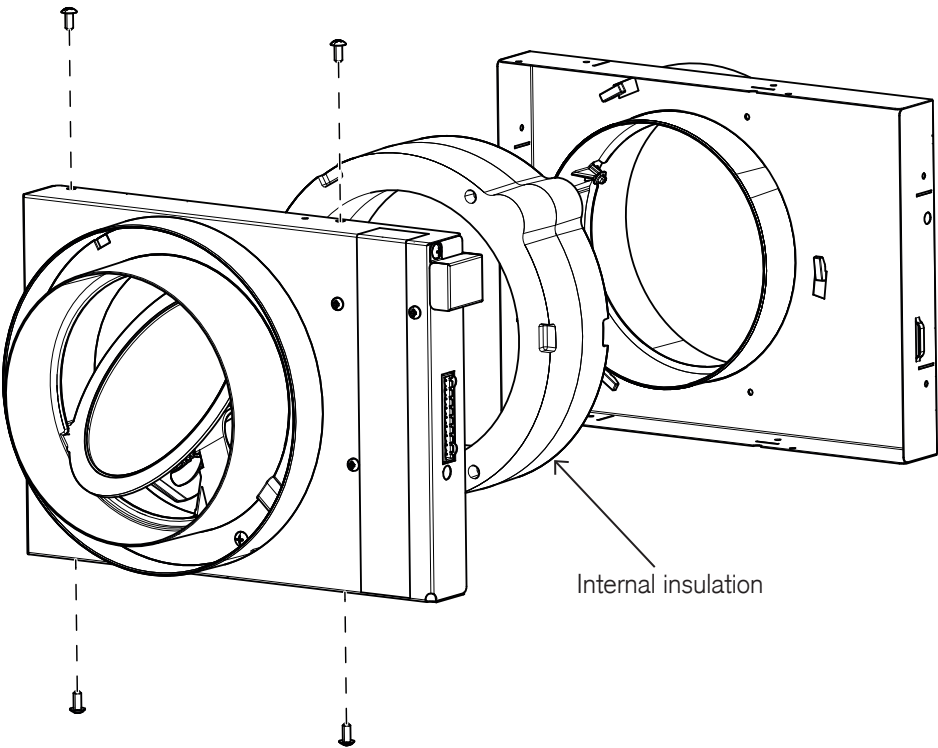
*Refer to the label on the unit for the full limits table.
**As defined by the Department of Energy.



7.4 TROUBLESHOOTING

A LED indicator is located to the right of the terminal block on the unit and communicates the different states of the unit. Blinking patterns and ways to address them, if applicable, are as follows:

Sensor error	1 blink	Disconnect the terminal block, and connect again. If the error persists, replace the unit.
Damper error	2 blinks	Disconnect the terminal block. Open unit (see image below). Perform a visual inspection and remove any debris hindering damper movement. Close unit and put the terminal block back in place. If error persists, replace the unit.
Damper adjustment mode	Continuous blink	This is normal while the unit is in adjustment mode.
Learning mode	1 s ON, 10 s OFF	This is normal. Will blink for 48 hours after being powered ON.



8. AVAILABLE ACCESSORIES

1. Service Parts

You can order the S1103502 replacement hardware kit, which includes the same components as the one included with the unit.

2. Dry Contact Synchronization

Your FIN-6MD can also be synchronized with other HVAC units via a 24 VAC dry contact.

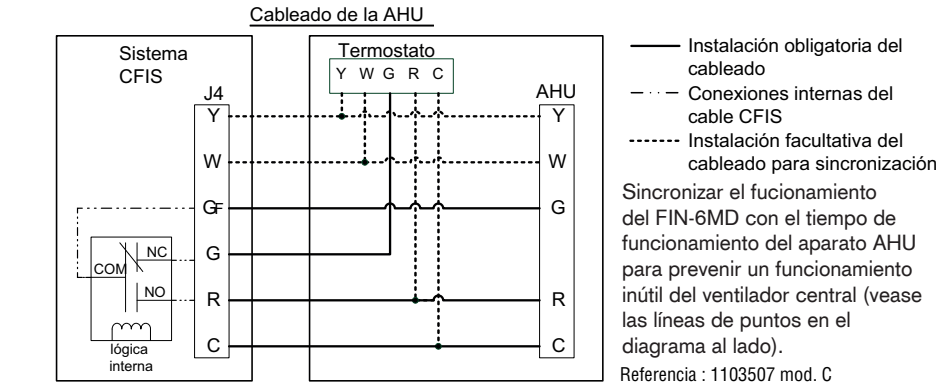
- Output mode: To activate other units operation. Requires a separate 24 VAC relay.
- Input mode: To activate your FIN-6MD operation.

Look for the FIN-DCS option kit that can be ordered separately.

NOTE: If the unit is turned off, this functionality will not work.

3

4.1 CABLEADO DE LA AHU



5. CONFIGURACIÓN DE LA UNIDAD

Cuando está ENCENDIDA, la FIN-6MD realiza una secuencia de arranque de 30 segundos, seguida por un periodo de 30 minutos en el que permanece APAGADA, pero se activará si se envía una orden de calentamiento o enfriamiento a la AHU.

- Consulte los códigos locales de edificación para determinar el caudal de aire necesario.
1. Verifique dos veces el cableado y vuelva a ENCENDER la energía de la AHU.
 2. Ajuste el termostato para que envíe una orden de calentamiento o enfriamiento o conecte R con Y en el bloque de terminales. Esto forzará el ENCENDIDO de la ventilación durante al menos cinco minutos.
 3. Mida el caudal de aire.
- % de tiempo de funcionamiento = $\frac{\text{Caudal de aire requerido}}{\text{Caudal de aire medido}}$ Ejemplo : Run time % = $\frac{60 \text{ pi}^3/\text{min}}{120 \text{ pi}^3/\text{min}} = 50\%$

- Si necesita ajuste, ejecute el paso 4. Si el caudal de aire no necesita ajuste, continúe con el paso 5.
4. El regulador de tiro viene ajustado de fábrica en posición totalmente abierto. Para ajustarlo, fije la celda izquierda en **AJUSTE DEL REGULADOR DE TIRO** para arrancar el soplador de la AHU y espere cinco segundos. El LED generará parpadeos continuos para indicar que la unidad está en modo de AJUSTE DEL REGULADOR DE TIRO.
- Mientras mida el caudal de aire, ajuste el regulador de tiro con la celda de % DE TIEMPO DE FUNCIONAMIENTO, hasta alcanzar el valor deseado.



5. Seleccione el modo deseado de acuerdo con la tabla y el mapa de la sección 7.3. Esta acción también guarda el ajuste del regulador de tiro del paso anterior, si corresponde.
6. Fije la celda de % de tiempo de funcionamiento.
7. Instale la cubierta suministrada para proteger las celdas de ajuste y evitar un cambio accidental de ajustes. Recuerde que el orificio podría quedar oculto por la etiqueta.

6. PRUEBAS

Cuando está ENCENDIDA, la FIN-6MD realiza una secuencia de arranque de 30 segundos, seguida por un periodo de 30 minutos en el que permanece APAGADA, pero se activará si se envía una orden de calentamiento o enfriamiento a la AHU.

6.1 PRUEBA EN LA PUERTA DEL SOPLADOR (CIERRE FORZADO DEL REGULADOR DE TIRO)

Si es **fácil** el acceso al interruptor integrado O al interruptor remoto (si corresponde), fije el interruptor integrado O el interruptor remoto en APAGADO (OFF).

- Si el acceso al interruptor **no es fácil**, por ejemplo, en un ático:
1. Desconecte (OFF) la energía de la AHU en el panel de servicio.
 2. Vuelva a ENCENDER la energía de la AHU en el panel de servicio.
 3. Espere 30 segundos para que se ejecute la secuencia de arranque.
 4. Asegúrese de que el termostato no envíe una orden de calentamiento o enfriamiento.
 5. La unidad quedará APAGADA con el regulador de tiro cerrado durante 30 minutos, pero se activará si se envía una orden de calentamiento o enfriamiento a la AHU.

6.2 PRUEBA DE VENTILACIÓN (ENCENDIDO FORZADO DE LA UNIDAD):

1. Desconecte (OFF) la energía de la AHU en el panel de servicio y asegúrese de que el interruptor integrado o remoto esté ENCENDIDO.
2. Vuelva a ENCENDER la energía en el panel de servicio.
3. Espere 30 segundos para que se ejecute la secuencia de arranque.
4. Ajuste el termostato para que envíe una orden de calentamiento o enfriamiento o conecte R con Y en el bloque de terminales. Esto forzará el ENCENDIDO de la ventilación durante al menos cinco minutos.

7. INFORMACIÓN DEL USUARIO

7.1 INTERRUPTORES INTEGRADOS Y REMOTOS

Esta unidad cuenta con un interruptor integrado de ENCENDIDO/APAGADO (ON/OFF). Para mayor comodidad, también puede conectarse el FIN-6MD con un interruptor remoto. Para usar un interruptor remoto, desconecte el interruptor integrado y conecte el interruptor remoto del mismo modo en que conectó el interruptor integrado.

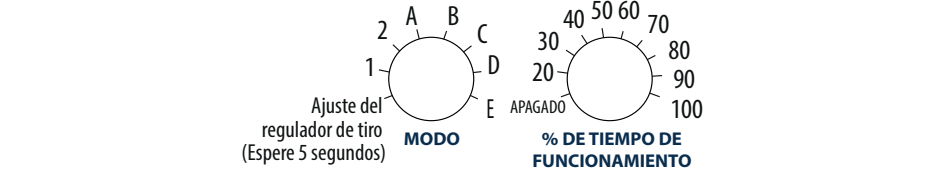
7.2 INSTRUCCIONES DE MANTENIMIENTO PARA EL USUARIO

- Inspeccione la entrada de aire exterior al menos una vez al año.
- Estas recomendaciones pueden variar según las condiciones ambientales de su área.

7.3 MODO POR COMODIDAD

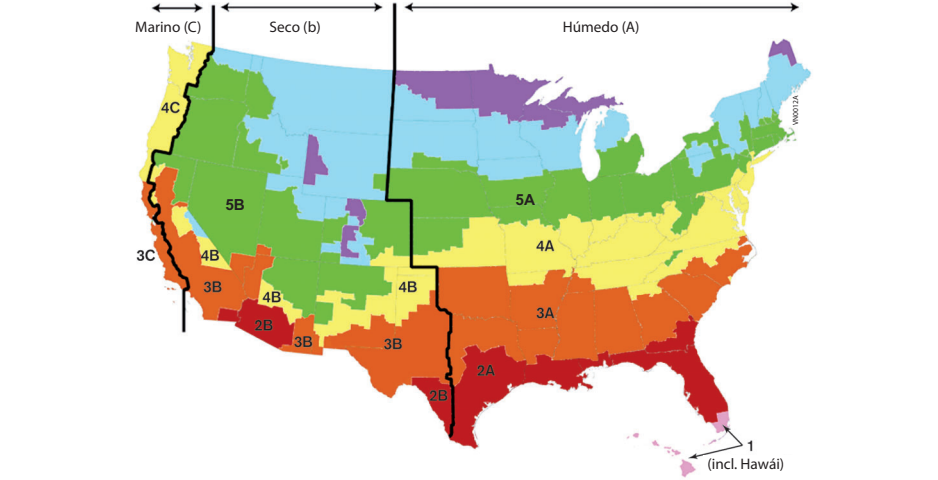
Si el aire al interior de su hogar se vuelve demasiado húmedo o si está intentando evitar este tipo de condiciones, puede cambiar el modo de funcionamiento del FIN-6MD desde un modo conforme a código (modos 1 y 2) a un modo por comodidad (modos A al E). Consulte el siguiente mapa para escoger la opción correcta.

Al aplicar dicho cambio, asegúrese de cambiar únicamente el Modo y de dejar el % de tiempo de funcionamiento en la forma en que lo fijó el instalador. Si tiene dudas, consulte con su contratista de HVAC.



Modo seleccionado*	Zonas climáticas**
1 Ashrae 2010/IRC/IMC (ajuste de fábrica)	Zonas 1-5
2 Ashrae 2016/2019	Zonas 1-5
A Modo de comodidad caliente / húmedo núm. 1	Zonas 2A y 1
B Modo de comodidad caliente / húmedo núm. 2	Zonas 1 y 2A
C Modo de comodidad caliente / seco	Zona 2B
D Modo de comodidad mixto / húmedo	Zonas 3A, 4A, 5A, 3C y 4C
E Modo de comodidad mixto / húmedo	Zonas 3B, 4B y 5B

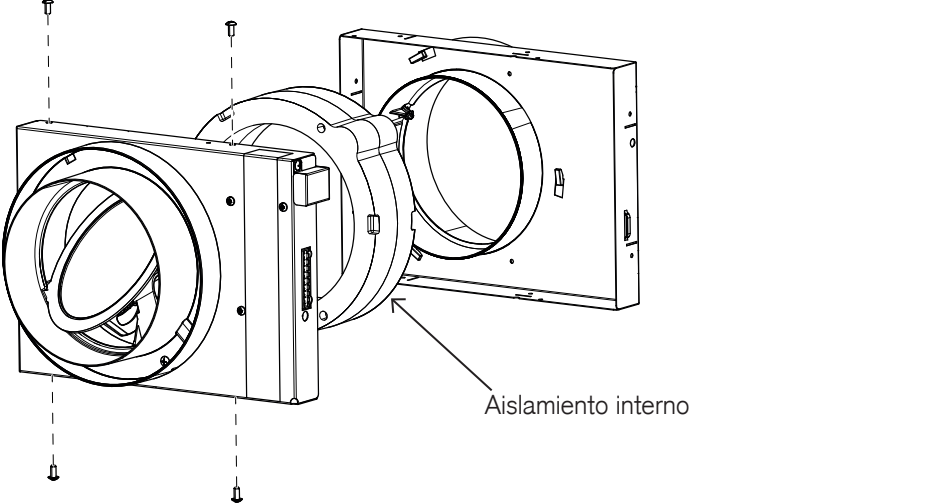
*Consulte la etiqueta de la unidad para ver la tabla completa con los límites.
**Según la definición del Departamento de Energía.



7.4 SOLUCIÓN DE PROBLEMAS

A la derecha del bloque de terminales de la unidad hay un indicador LED que comunica los distintos estados de la unidad. Los patrones de parpadeo y las formas de abordarlos, si corresponde, son:

Error de sensor	1 parpadeo	Desconecte el bloque de terminales y vuelva a conectarlo. Si el error persiste, reemplace la unidad.
Error del regulador de tiro	2 parpadeos	Desconecte el bloque de terminales. Abra la unidad (consulte la siguiente imagen). Efectúe una inspección visual y retire los residuos que impidan el movimiento del regulador de tiro. Cierre la unidad y vuelva a colocar el bloque de terminales. Si el error persiste, reemplace la unidad.
Modo de ajuste del regulador de tiro	Parpadeo continuo	Es normal mientras la unidad esté en modo de ajuste.
Modo de aprendizaje	1 segundo ENCENDIDA, 10 segundos APAGADA	Esto es normal. Parpadeará durante 48 horas después de ser encendida.



8. ACCESORIOS DISPONIBLES

1. Piezas de recambio
Se puede ordenar el kit de herramientas S1103502, que incluye los mismos componentes que el kit incluido con la unidad.
 2. Sincronización con contacto seco
Su FIN-6MD puede sincronizarse con otras unidades HVAC usando un contacto seco 24 V CA.
- Modo salida: Para activar el funcionamiento de otras unidades. Necesita un relé por separado de 24 V CA.
 - Modo entrada: Para activar el funcionamiento de su FIN-6MD.
- Busque el kit opcional FIN-DCS que puede ordenarse por separado.

NOTA: Si el aparato está apagado, esta función no funcionará.

Broan-NuTone LLC Hartford, Wisconsin
www.broan-nutone.com 800-558-1711

1. Fije la celda izquierda en AJUSTE DEL REGULADOR DE TIRO.

2. Use la celda derecha para ajustar el regulador de tiro desde totalmente abierta a medio abierta.

3. Fije el modo requerido para guardar el ajuste del regulador de tiro.

4. Fije el % DE TIEMPO DE FUNCIONAMIENTO para alcanzar el nivel de ventilación requerido.

Modos por código:

1. ASHRAE 2010/ IRC/ IMC (ajuste de fábrica)

2. Ashrae 2016/2019

Modos por comodidad:

A. Caliente / húmedo núm. 1

B. Caliente / húmedo núm. 2

C. Caliente / seco

D. Mixto / húmedo

E. Mixto / seco

SO SI I C R G GF W Y

Interruptor Cableado de la AHU

BROAN

Error de sensor 1 parpadeo

Error del regulador de tiro 2 parpadeos

Ajuste del regulador de tiro Parpadeo continuo

Modo de aprendizaje 1 s en ENCENDIDO y 10 s en APAGADO

SEÑAL LED

11034978

Modo seleccionado	Sin orden del termostato		Orden de calentamiento		Orden de enfriamiento			
	Límites inferiores (F)	Límites superiores (F)	Límites inferiores (F)	Límites superiores (F)	Límites inferiores (F)	Límites superiores (F)		
1	-4	Conforme, sin límites	-4	Conforme, sin límites				
2	-4	Conforme, sin límites	-4	Conforme, sin límites				
A	40	23	88	73	32	14	96	78
B	40	23	90	75	32	14	98	80
C	40	23	95	75	32	14	102	85
D	40	23	85	75	32	14	90	80
E	40	23	86	75	32	14	95	80

*D.P.: Punto de rocío