



Sciaire Pro H300/H310

INSTRUCTION MANUAL



Need Help?



1-877-548-9722

9 AM - 6 PM, CST, Monday - Friday



WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer. For more information, go to www.P65Warnings.ca.gov

*The Sciaire Pro H300/H310 uses PlasmaShield Technology.

**Dispose used products according to local regulations.

MADE IN CHINA

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DH-IOM-SPH300-REV1

Dernier & Hamlyn Inc.
720 Northgate Parkway
Wheeling, IL 60090

Your safety is important to us.

Read all safety instructions before you use the device.



WARNING! TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK OR INJURY PLEASE ADHERE TO THE FOLLOWING:

- ! DO NOT connect to power before installation is complete.
- ! Always disconnect power to the air ion generator before handling.
- ! All field wiring needs to be in accordance with NEC and Authorities Having Jurisdiction (AHJ).
- ! It is recommended that a step down transformer is used to power the air ion generator in low voltage applications. The transformer must be grounded.
- ! Do not install the air ion generator on the same circuit as a UV Lamp or connect to the same transformer as a UV Lamp.
- ! The installer shall provide a power source that is properly grounded per the local AHJ.
- ! To avoid risk of injury, this device should not be used by children or persons with reduced physical sensory or mental capacity.

- ! These servicing instructions are for use by qualified personnel (an authorized technician) only. To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.
- ! The supply wiring cannot be replaced. If the wiring is damaged the device should be scrapped. (only applies for H310)
- ! This product is suitable for mounting to duct to metal duct and duct-board. Installation must be such that the structural integrity of the ducting is not compromised.
- ! Risk of electric shock. Can cause injury or death: Disconnect all remote electric power supplies before servicing. To avoid risk of fire and shock, use only flexible conduit.
- ! This product should be installed in areas that are accessible for easy maintenance.

Read all safety instructions in the instruction manual, and on device.

SAVE THESE INSTRUCTIONS.



Product Description

Sciaire Pro H300/H310 is a carbon fiber brush air ion generator producing positive and negative ions. This device is designed to be installed on metal duct work or duct-board. It accepts universal voltage from 24V DC to 24-277V AC. This ionization system has a self-cleaning function that will clean the carbon brush emitters automatically for a duration that is selected (1 day, 3 days, or 7 days). Sciaire Pro H310 has dry contacts with a watertight flexible conduit that can be connected to a BAS alarm system to monitor the operation of the device.

Product Overview



1. Control Panel
2. Watertight Flexible Conduit (H310 Only)
3. Dry Contacts for BAS Integration (H310 Only)
4. Bipolar Ion Emitter
5. Self-Cleaning Rod
6. Bipolar Ion Emitter
7. Self Drilling Sheet Metal Screws (x 4)
8. Expanding Anchors with Screws (x 4)

Device Specifications

Model	Sciaire Pro H300	Sciaire Pro H310
Difference	Conduit, wiring & dry contacts not included with Air Ion Generator	Conduit, wiring & dry contacts pre-installed to Air Ion Generator
Net Weight	1.51 lbs (0.69kg)	2.21 lbs (1kg)
Input Voltage	24V-277V AC, 50/60Hz	
Power Consumption	5W	
Alarm Rating	250V AC/1A	
Humidity Range	0%~85%	
Temperature Range	4°F – 140°F (-20°C – 60°C)	
Dimensions (Diameter x Height)	5.83 x 5.04 inches (149 x 128 mm)	
Conduit Length (H310 only)	7.5 feet (2.3m)	
Airflow	Up to 4,800 CFM (12 tons)	
Compliance & Certifications	UL 867, CSA C22.2 No. 187, UL 2998, UL2043, CARB	

Unpacking and Setup

1. Take everything out of the box and verify that all items are included. It is recommended to retain the packaging for storage and/or shipping purposes.
2. The hardware listed below are not included:
 - 4-inch hole saw or snips
 - Sealant to make duct air/water tight after installation (if required)
 - Electrical junction box to bring power into the vicinity of the air ion generator
 - Magnetic screw driver (recommended for easier screw locking operation)
 - Appropriate conduit, wiring and/or tie for H300.**NOTE: H310 comes with pre-installed watertight flexible conduit.**



Sci aire Pro H300

Need to purchase dry contacts and conduit separately (not included with H300)



Sci aire Pro H310

Pre-installed dry contacts & conduit included

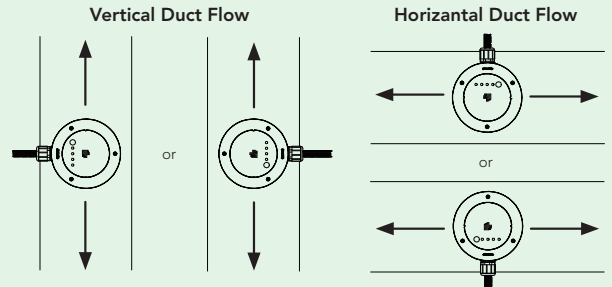
Watertight Flexible Conduit

Dry Contacts

Installation Location

Before installation, please consider the following:

1. General maintenance access needed.
2. Carbon brush tips (bipolar ion emitters) are not within 3/4" (19mm) of any metallic surface to prevent arcing.
3. Air stream flows over the 2 carbon brush tips simultaneously. Ensure the device is oriented according to the air flow indicator on the air ion generator. For horizontal and vertical applications the air ion generator can be installed in one of two positions shown.



4. Location should be downstream of the filter(s).
5. Avoid locations directly after a cooling coil or humidifier.
6. For best results install as close to the conditioned space as possible. Maximum ambient temperature in which unit shall be used is 140°F/60°C.
7. For VAV and other mixing box installations, install on discharge/supply side of box.

Electrical Connection



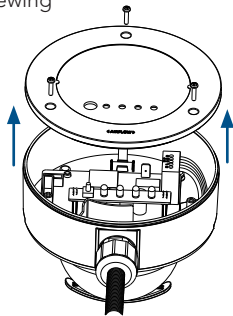
WARNING: DO NOT CONNECT TO POWER BEFORE INSTALLATION IS COMPLETE. ALWAYS DISCONNECT POWER (INCLUDING LIVE AND NEUTRAL CONDUCTOR) TO THE UNIT BEFORE HANDLING THE AIR ION GENERATOR.

1. Ensure power to HVAC equipment and Sciaire Pro H300/H310 are disconnected. Follow all local and national electrical and building codes.

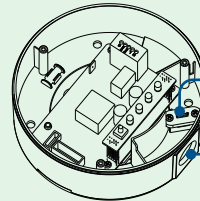
NOTE: It is recommended that Sciaire Pro H300/H310 is powered constantly using a separate transformer in case of overload. DO NOT tie to the system or blower.

The device will self adjust to voltages from 24V DC, 24V to 277VAC. Output and performance will not be affected by choice of input voltage.

2. Remove the cover by unscrewing the three screws.



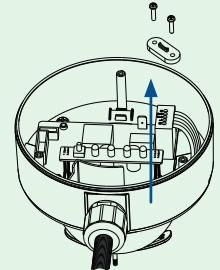
3. For flexibility of installation, the H300 is supplied without an electrical conduit and wiring. It has a hole sized for 0.86" (22mm) trade size conduit fittings (0.86" NPT) and an internal strain relief clamp.



Strain Relief Clamp

.86" Conduit Fitting

4. For plenum applications, the H300 is approved for use with UL recognized flexible metallic conduit from UL category DXUZ,7.
5. For other applications, non-metallic flexible conduit is recommended. This conduit should be a UL recognized component from category DWTT,7.
6. Conduit and wiring must be purchased separately for the Model H300 and installed in accordance with local electrical codes.
7. Before electrical connection, unlock the strain relief clamp and reserve it to use after positioning the wires.



8. Wiring connection per the recommended color:

White x 1 (Neutral N)

Black x 1 (Hot L)

Yellow/Green x 1 (Ground G)

Gray x 2 (BAS contacts if utilized)



All field wiring to be in accordance with NEC and Authorities Having Jurisdiction (AHJ).

NOTE: Metallic conduit shall be properly bonded in accordance with the national electric code article 250.

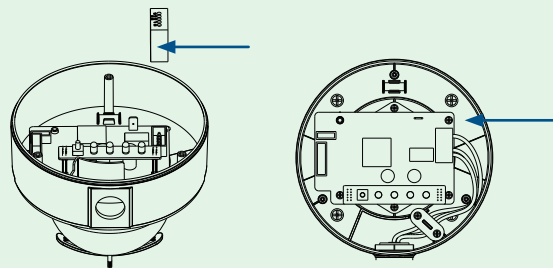
9. Connect the appropriate conduit and fitting as necessary for the application.

10. Route the wires as shown and make connections according to the markings on the product terminals. The terminal cap can be taken off for easy connections. After connection, plug the terminal cap back, clear up the wires, and tighten the strain relief clamp sufficiently to hold the wires being careful not to damage them with excessive torque.

11. Connect the power wires as follows:

Cable ties or band clamps

- Black Hot, 24 - 277VAC or 24VDC (+)
- White Neutral, or 24VDC (-)
- Yellow/Green Ground
- Gray Dry Contacts/BAS terminals



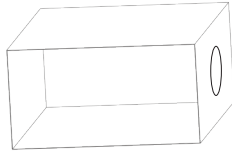
NOTE: Wire of BAS terminals is optional. The H310 is equipped with dry contacts that are normally open and close when the H310 is on and has no faults. The contacts are rated up to 250VAC and 1A.

Square Duct Installation

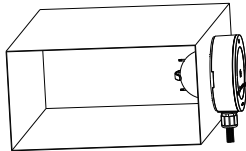


WARNING: DO NOT CONNECT TO POWER BEFORE INSTALLATION IS COMPLETE. ALWAYS DISCONNECT POWER (INCLUDING LIVE AND NEUTRAL CONDUCTOR) TO THE UNIT BEFORE HANDLING THE AIR ION GENERATOR.

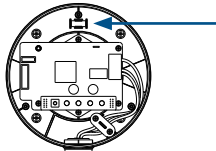
1. Find an ideal location for Sciaire Pro H300/H310 and create a 4" diameter hole for device placement.



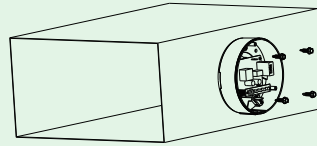
2. Insert the device's dome housing in the 4" hole.



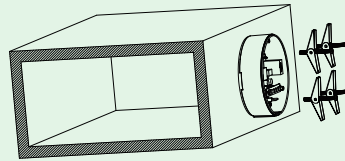
3. Correctly orient the device by the integrated bubble level for horizontal and vertical duct runs.



4. Install the air ion generator so that airflow is passing by both emitters at the same time. The conduit and connection grommet should be pointed down. Secure to the duct with provided screws.

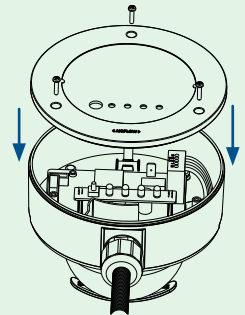


Self drilling sheet metal screws for metal duct



Expanding anchor bolts for fiberglass insulated duct-board

5. Lock the control panel cover back with the three screws.



Round Duct Installation

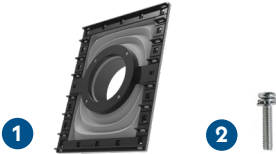


WARNING: DO NOT CONNECT TO POWER BEFORE MECHANICAL INSTALLATION IS COMPLETE. ALWAYS DISCONNECT POWER BEFORE HANDLING.

1. Duct-mounted saddle accessory for round duct installation is sold as a separate accessory.

Part No.: H300AC-1

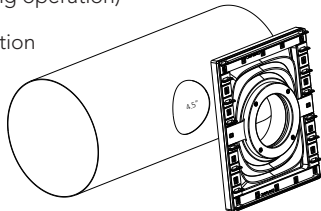
Content: 1. Saddle, 2. Three Combination Screw (x 4)



2. The hardware listed below are not included:

- 4.5-inch hole saw or snips
- Cable ties or band clamps
- Magnetic screw driver (recommended for easier screw locking operation)

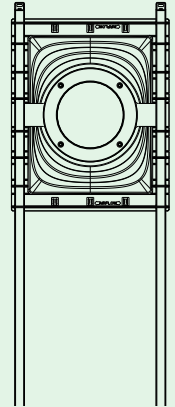
3. Find an appropriate location for the Air ion generator and cut a 4.5" hole.



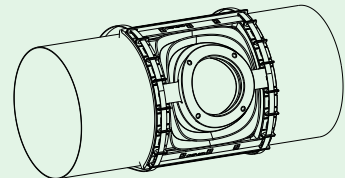
4. Slide the cable ties or band clamps through the saddle eyelets.

- Max width of eyelet is 1/2"
- Please select cable tie length per the duct size.

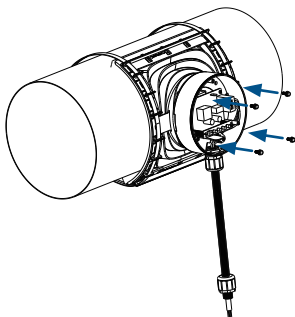
6" duct	24" tie length
8" duct	36" tie length
10" duct	50" tie length
12" duct	60" tie length
14" duct	70" tie length
16" duct	78" tie length
18" duct	88" tie length
20" duct	98" tie length



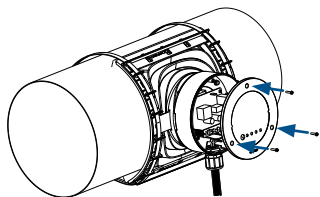
5. Put the saddle on the round duct and connect the cable ties or band clamps around the duct. Tighten the cable ties until the soft foam is slightly compressed against the duct wall.



- Put the air ion generator into the saddle, correctly orienting the device by the integrated bubble level for horizontal and vertical duct runs. Lock the 4 x three combination screws from air ion generator to saddle ensuring it is secure. It is recommended to use a magnetic screw driver for easier operation.



- Lock the control panel cover back with the three screws.



Operation

- After Installation, apply power to unit. Confirm that green indicator light illuminates showing that the air ion generator is on and functioning properly. If green indicator is flashing, please contact customer support for trouble shooting.



- Self-cleaning can be activated by pressing the mode button for 3 seconds. The air ion generator comes with a factory preset of 1 Day self-cleaning mode, which is sufficient for most applications.
- Press the mode button to change the frequency duration. select the cleaning cycle of 1 Day (white indicator), 3 Days (blue indicator) or 7 days (Yellow Indicator). The selected indicator light will flash while self cleaning is engaged.



CAUTION! Never touch emitters while operating, shock may occur.

Troubleshooting

Symptom	Probable Cause/Solution
Unit will not power up, no indicator light	Confirm proper voltage is applied to the correct terminal(s). Remove power, wait 1 minute, and reapply power. If no light is displayed, try an alternate power source. If using 24V DC, try 24V AC, 120V AC or vice versa.
Green indicator flashing	Air ion generator or internal self cleaning motor may be defective, please contact customer support.
Self-cleaning rod does not work	Remove power, wait 1 minute, and reapply power. If it's still not working, please contact customer support.

For issues not covered here, please contact DH Lifelabs customer support 1-877-548-9722.

Product Registration



dhlifelabs.com/product-registration

The information provided in this manual is up to date at the time of printing. Any revisions to this document will supersede the content included. For the latest applicable version of this manual, visit dhlifelabs.com/pages/pro-series

Warranty

This 5 year limited warranty applies to repair or replacement of product found to be defective in material or workmanship. This warranty does not apply to damage resulting from commercial, abusive, unreasonable use or supplemental damage. Defects that are the result of normal wear and tear will not be considered manufacturing defects under this warranty.

DH Lifelabs IS NOT LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY NATURE, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THIS PRODUCT IS LIMITED IN DURATION TO THE DURATION OF THIS WARRANTY.

Some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages or limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you also may have other rights which vary from jurisdiction to jurisdiction. This warranty applies only to the original purchaser of this product from the original date of purchase.

At its option, DH Lifelabs will repair or replace this product if it is found to be defective in material or workmanship. This warranty does not cover damage resulting from any unauthorized attempts to repair or from any use not in accordance with the instruction manual. This warranty does not cover the filter except for material or workmanship defects.