

Installation / Operation Manual

SoHo Hub Power & Control Box

Tools Required

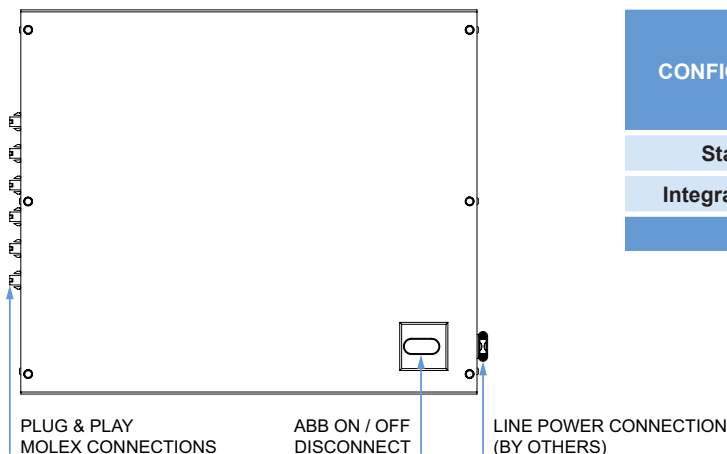
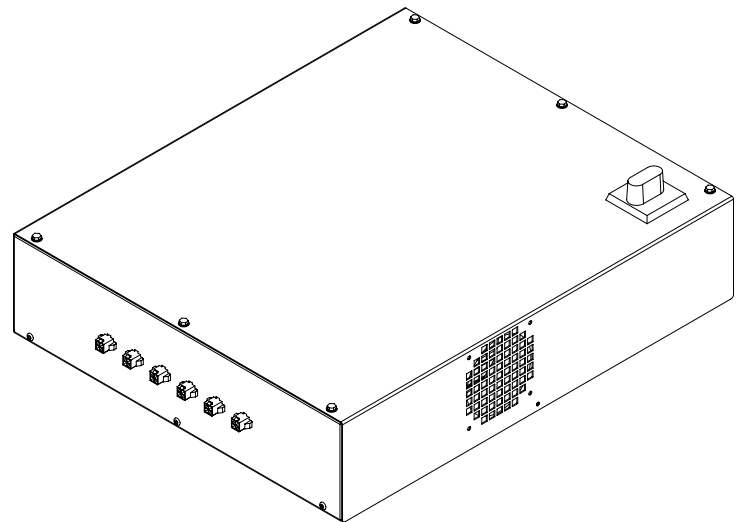
1. Power Screwdriver
 - Phillips #3 Bit
 - Tighten / loosen floor panel screws
 - 1/4" Hex Head Driver
 - Tighten / loosen Hub cover screws
2. Panel Lifter (Suction Cups)
 - Remove raised access floor panels

Materials Required

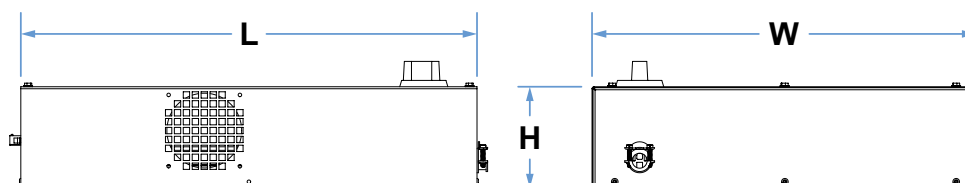
1. SoHo Hub Power & Control Box
2. Plug & Play Molex Cables

Preparation

1. Verify that the SoHo Hub is the correct model, unit count and location(s) per scheduled placement.
2. Verify that required plug and play cabling has been routed to all designated installation locations in the zone.



CONFIGURATION	L LENGTH		W WIDTH		H HEIGHT	
	(in)	(mm)	(in)	(mm)	(in)	(mm)
Standard	18	457	15.2	386	4	102
Integrated XMFR	18	457	19.2	488	4	102
ALL DIMENSIONS NOMINAL +0.5" / -0.0" (+13mm / -0mm)						



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Installation

1. Identify the floor panel covering the scheduled Hub installation location, per mechanical plans.
2. Using a power screw driver with a Phillips #3 bit, remove all screws securing the floor panel in place. Once free, use a panel lifter (suction cups) to lift the panel up out of the floor.
3. Confirm that the Hub ABB Disconnect Switch is in the “OFF” position.
4. Using a power screw driver with a 1/4" Hex Head Driver bit, remove seven (7) screws securing the Hub cover in place. Once free, lift the cover off to gain access to the internal wiring (**FIGURE 1**).
5. Connect building line voltage to the ABB Disconnect Switch.
6. Connect the ground wire to the ground lug, marked with the “Ground” (⏚) symbol.
7. Connect the Hub to the designated thermostatic zone using the supplied PAP plug & play cables:
 - Connect thermostat signal cable to the molex connection marked “THERMOSTAT”
 - Connect SoHo control cable to the molex connection marked “FAN”
8. Replace Hub cover, and use a power screw driver with a 1/4" Hex Head Driver bit to replace the seven (7) screws and secure it back in place.
9. Set the ABB Disconnect Switch back to the “ON” position. Confirm that all connected SoHo fans are operating correctly.
10. Set the Hub on the subfloor at it's scheduled installation location. Once done, replace the floor tile and use a power screw driver with a Phillips #3 bit to replace all removed screws and secure it back in place.

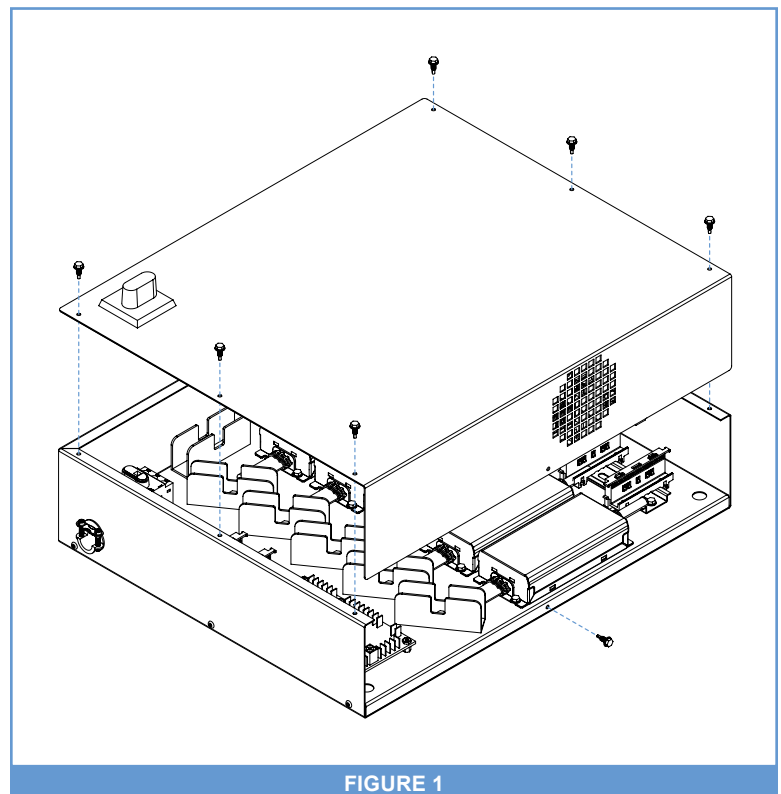


FIGURE 1

Operation & Maintenance

Once the SoHo Hub has been correctly installed and full functionality has been confirmed, no direct input or regular maintenance is required for proper operation.

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Electrical Specification

ELECTRICAL SUPPLY	MCA	MOP	Single Phase 120V units require 3 conductors: Line / Neutral / Ground
120V (120/1/60)	2.79	5.15	

Sequence of Operation

MODE	HEATING DEMAND	FAN SPEED	WATER VALVE	
			(MODULATING 0-10V)	(2-POSITION)
HEAT DEADBAND	0%	OFF	OFF	OFF
HEATING STAGE 1	20%	ON 50% ¹	OPEN 50%	OPEN
HEATING STAGE 2	50%	ON 75% ¹	OPEN 75%	OPEN
HEATING STAGE 3	70%	ON MAX ²	OPEN 100%	OPEN

Notes

- Fan Speed Max in Heating Mode (2) set by Adj2 Pot (R8 on right)
- Range: 20% (CCW) to 100% (CW) of Full EC Fan Speed
- Factory set to Job Specified Heating fan speed
- Incremental Speed (1) are 50% and 75% of Max Speed

Heating Only (2-Pipe)

Heating Mode (Option #1)	Thermostat (controller) to send 0–10VDC heating signal. Water valve to open (modulate open); fan shall run at constant speed. Fan max speed is factory set, field adjusted.
Heating Mode (Option #2)	Thermostat (controller) to send 0–10VDC heating signal. Water valve to open (modulate open); fan shall modulate speed. Fan max speed is factory set, field adjusted.
Cooling Mode	Water valve to close; fan is off.

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Sequence of Operation (Continued)

Heating / Cooling (2-Pipe)	
Aquastat	Aquastat (factory furnished loose; field installed and wired by contractor) to verify if cooling chilled water or heating hot water is present in pipe.
Heating Mode (Option #1)	After confirmation that heating hot water is present in pipe, thermostat (controller) to send 0–10VDC heating signal. Water valve to open (modulate open); fan shall run at constant speed. Fan max speed is factory set, field adjusted.
Heating Mode (Option #2)	After confirmation that heating hot water is present in pipe, thermostat (controller) to send 0–10VDC heating signal. Water valve to open (modulate open); fan shall modulate speed. Fan max speed is factory set; field adjusted.
Cooling Mode	After confirmation that cooling chilled water is present in pipe, thermostat (controller) to send 0–10VDC cooling signal. Water valve to open (modulate open); fan shall modulate speed. Fan max speed is factory set, field adjusted.

Heating / Cooling (4-Pipe)	
Heating Mode	Thermostat (controller) to send 0–10VDC heating signal. Heating hot water valve to open (modulate open); fan shall run at constant speed. Fan max speed is factory set, field adjusted.
Cooling Mode	Thermostat (controller) to send 0–10VDC cooling signal. Cooling chilled water valve to open (modulate open); fan shall modulate speed to maintain cooling setpoint. Fan max speed is factory set, field adjusted.