

EMERSON

1. Contractor Firmware Update Process

If the Sensi thermostat being installed has not yet received a firmware update over the air, please follow the instructions below:

- 1. Dial 1-888-605-7131
- 2. Press 2 in the first menu, indicating that you are professional and Press 3 in the second menu
- 3. When your call is answered, tell the agent that you are at a customer's home and need the firmware update pushed for the hum/dehum capabilities. Provide the MAC ID located on the back of the faceplate to the agent.

2. Installation - Compatibility and Wiring





Y2/* terminal energizes on call for humidification with call for heat
W2/* terminal de-energizes on call for dehumidification with call for cool

3. Configuration – Setting Humidification/Dehumidification Control Capability On/Off

CONFIG	URATION MENU ITEMS REFE	RENCE	
Display Code	Menu item	Default	Options
	Wireless Setup Connects Thermostat to Wi-Fi network	-	Connect
	Fahrenheit or Celsius	F	F C
	Outdoor Equipment Configuration Cooling or heat pumps	AC2	AC1 - Conventional Cooling 1 (Single Stage) AC2- Conventional Cooling 2 (Two-Stage) HP1 - Heat Pump 1 (Single Stage) HP2- Heat Pump 2 (Two-Stage) AC0- No Cooling
	Indoor Equipment Configuration For Gas or Electric Heat	EL2	EL1- Electric 1 (Single Stage) EL2- Electric 2 (Two-Stage) FAn GA1 Gas 1 (Single Stage) GA2 Gas 2 (Two-Stage)
	Reversing Valve Position Selects "O" or "B" Setting		O B
Fn	For Heat Pumps Only Circulating Fan	OFF	2 Off/10% – 100% (5% increments)
H AA	Humidification Add Accessory	OFF	Off/On
H SP	Humidification Set Point	OFF	Off/5% – 50% (5% increments)
dH AA	Dehumidification Add Accessory	Od	Od/Oc Od – Optimal dehumidification (Overcool to dehumidify) Oc – Optimal comfort (Wired dehumidification)
dH SP	Dehumidification Set Point	OFF	Off/40% – 95% (5% increments)
	Wireless Radio Turns Wi-Fi Radio On/Off	ON	Off/On



4. Using the Feature – Turning Humidification Control On/Off and Setting the Humidity Setpoint

Dehumidification Control at the

thermostat

Humidification/Dehumidification Control in the Sensi App



Frequently Asked Questions

Humidification Control at the

thermostat

	FAQ	Answer				
Firmware Update	When can I get the firmware OTA update for the humidity control?	Firmware updates for humidity control are automatically installed once a Sensi smart thermostat is connected to the internet.				
Firmwar	Which versions of Sensi thermostats are compatible with Humidity control?	Sensi Touch (1F95U) and Sensi Classic (1F87U) thermostats are all backwards compatible. 1F86U and UP500W models are currently not compatible.				
8 L	What terminals should I use to enable the humidity control?	Use Y2/* for humidification and W2/* for dehumidification				
Installation & Configuration	What types of humidifiers and dehumidifiers are supported?	Humidifiers – Any 24VAC humidifier. Currently, Sensi does not support independent (from a call for heat) humidification Dehumidifiers – HVAC systems with a dehumidify mode (slowing of the system's fan speed) or 24VAC dehumidifiers. Currently, Sensi does not support independent (from a call for cool) dehumidification.				
Ire	What is an appropriate humidity setpoint?	Depending on the outdoor temperature, the ideal indoor humidity level is between 30-50% RH. In cold weather, if condensation appears on your windows, lower the humidity setpoint.				
Using the Feature	What is Overcooling to Dehumidify?	On air conditioning systems without a dehumidifier, the dehumidification feature allows Sensi to overcool to a maximum of 3° below the AC setpoint to help control humidity. Systems with dehum terminals on the air handler or wired dehumidifiers will use those capabilities rather than overcooling.				
	Why is my system unable to reach my humidity setpoint?	During extremely cold and dry or hot and humid climates, your humidifier or dehumidifier may not be able to increase or decrease humidity enough to reach your setpoint depending on the size of your equipment.				





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2. Installation - Compatibility and Wiring

SENSI THERMOSTAT	CONVENTIONAL SYSTEM	HEAT PUMP SYSTEM			
RH⁺	Power for heating, 24	V			
RC [†]	Power for cooling, 24V				
C Common wire, 24V					
Y	1st stage cool	1st outdoor stage heat			
Y2/*	2nd stage cool or humidifier	2nd outdoor stage heat and cool or humidifier			
W/E	1st indoor stage heat	1st stage auxiliary/ emergency heat			
W2/*	2nd indoor stage heat or dehumidifier	2nd stage auxiliary/ emergency heat or dehumidifier			
G	Indoor blower (fan)				
O/B	Changeover (reversing valve) connection for heat pump or zone panel systems				
L	no function	"L" terminal connection			



3. Configuration – Setting Humidification/Dehumidification Control Capability On/Off

CONFIGURATION MENU I	TEMS REFER			Press Adva	nced Set Up		Pre	ss Set Up H	VAC Equipm	nent
Menu item	Default	Options								
Sleep Mode	Off	Turn sleep display mode on/off	\leftarrow	М	enu		\leftarrow	Advance	d Set Up	
Backglow	Off	Off / On								
Home Screen Content	On	Indoor Humidity	Z″ Sleep Mode	Back Glow	Mome Screen	Schedule	O Set Up HVAC	Fan Mode	+ Humidify	– Dehumidi
	On	Time of Day	Steep Mode	BACK GLOW	Content	Schedule	Equipment	Options	Humidity	Denumiai
	°F	°F/°C								
Schedule	-	5 / 2 Day Schedule	((r	122	0					
Wi-Fi	-	Connect to Wi-Fi	Wi-Fi	About Thermostat	Advanced Set Up					
About Thermostat	-	Model Number/Reset		mermostat	Sec op					
Advanced Setup		HVAC Equipment Fan Mode Options								
Set Up HVAC Equipment	AC2 / EL2									
	AC2	Outdoor Setup AC1/AC2/HP1/HP2/None					 			
	EL2	Indoor Setup GA1/GA2/EL1/EL2/Fan		Additional	Accessories					
	O Reversing Valve Position O/E		Before adding additional accessories visit				Outdoor equipme		AC1 AC2	HP1 HP2
	None	Additional Accessories None/Add	sensi.emerson.com/compatibility							
	No	Humidifier (wired to	Humidifier (Wired to thermostat) Yes No			Indoor equipmen	t	GA1 GA2	EL1 EL2	
		thermostat) Yes/No	Humidiner (wire	d to thermosta	t) Yes	No	Reversing valve p	osition	0 B	6 Noi
	No	Dehumidifier (wired to	Dehumidifier (W	ired to thermos	tat) Yes	No				
		thermostat) Yes/No					Additional access	ories		Add
Fan Mode Options	Off	Circulating Fan Off/On								
		10% - 100% (5% increments)	Can	cel	S	ave	Canc	əl	1	Save
	Off	Humidification Off/On	Make collection depending on			Press Add Additional accessori			•	
Humidify	1.00/		Make selection depending on installed equipment							
Humidify Dehumidify	40% Off	5%- 50% (5% increments) Dehumidification Off/On	ма			on	Press		onal access	sories

4. Using the Feature - Turning Humidification Control On/Off and Setting the Humidity Setpoint

Humidification Control at the thermostat (Advanced Set Up -> Humidify)

Humidification

ON C

Humidification using wired equipment:

Use your wired humidifier to add moisture to the air.

Dehumidification Control at the thermostat (Advanced Set Up -> Dehumidify)

Dehumidification using wired equipment:

Dehumidification ON C Use your wired dehumidifier or slow your system's fan speed to remove moisture from the air. Set To 50% Set To 50% Dehumidification using overcooling: Dehumidification ON 🥌

Overcool up to 3° below your set point to remove moisture from the air.

(Set To **50%**)

Humidification / Dehumidification Control in the Sensi App



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