Start-up Procedure

Initial verification and start-up must be carried out by suitably qualified personnel.

It is strictly recommended to follow this start-up procedure in order to avoid any anomaly resulting from inaccurate installation of the components.

Initial Verification

Clearance	1. Ensure that the humidifier cabinet is installed in a location in which the humidifier can be serviced correctly.	☐
Electrical Supply	2. Verify that the power supply (voltage) conforms to the appliance name plate on the side of the humidifier.	☐
	3. Confirm that 24Vac is present between terminals TB4 1&2 on the control connection PCB. Remove the front top cover to get to this PCB.	☐
Water Supply	4. Ensure that water is supplied to the humidifier and that a shut-off and a non-return valve are placed outside the humidifier.	☐
	5. With the water shutoff valve turned on, check that the drain connections are connected to the main drain line with sufficient diameter. Ensure that there are no apparent leaks.	☐
	6. Confirm that the drain piping is properly connected with a pitch of at least ¼" (6.5mm) per foot (300mm) horizontal run.	☐
Steam	7. Verify that the steam distributors are properly installed into the ventilation duct.	☐
	8. Verify that the flexible steam hoses and rigid steam supply pipes are shorter than 16ft (5 m) in total, are properly sloped and have condensation "S" traps wherever required.	☐
Gas Supply	9. Confirm that a proper regulator and gas test point have been installed on the gas line to the humidifier.	☐
	10. Confirm that gas is supplied to the humidifier and that the shut-off valve located outside the humidifier is closed. With the shut-off valve is turned on, check for leaks, gas, smell or hissing sounds.	☐
Flue Gas Venting	11. Verify that the flue gas venting is as follows: a) Ensure that a tee is installed with a drain trap for the flue gas condensate. b) Check that all connections are air tight. c) Ensure that the total length of the flue gas venting pipe is no longer than 100ft (30 meters). d) An approved venting system is used, such as one of the following: • Chiminee Lining HEP, HEPL or HEPL2 rigid venting system, or • Flexmaster Z-Vent Model SVE Series III rigid venting system, or • DuraVent FasNSeal (single-wall) or FasNSeal W2 (double-wall) venting system, or • Magnaflex's PV model insulated flexible venting system, or • Selkirk/HeatFab Saf-T Vent Model single-wall or double-wall venting system, or • Other approved system, please specify (for reference) _____ **Note: Aluminum B vent is not acceptable**.	☐ ☐ ☐ ☐
Controls	12. Ensure that the Airflow switch is properly installed and connected to the printed circuit board. If an Airflow switch is not used, verify that a jumper is connected between terminals TB3 1&2.	☐
	13. Ensure that the High limit duct humidistat is properly installed and connected to the printed circuit board. Verify that the setpoint is properly adjusted. If a High limit duct humidistat is not used, verify that a jumper is connected between terminals TB3 1&3.	☐

Controls	14. Ensure that the Interlock is properly connected to the printed circuit board. If the Interlock is not used, verify that a jumper is connected between terminals TB3 1&4.	☐
	15. If a room or duct humidistat is used, verify that it is correctly installed and properly connected to the humidifier. Verify that the setpoints are properly adjusted.	☐
	16. Turn the power on using the circuit breaker.	☐
	17. Confirm the control set-up of the humidifier and verify that the setpoints are properly adjusted.	☐

Start-Up

Start-up	1. Proceed to start-up the humidifier, as follows:	
	a) With the humidifier front access open, ensure that the manual drain valve is closed.	☐
	b) Turn on the humidifier by pressing and holding the Power button for 3 seconds. Verify that the controller Status Display LED is blue.	☐
	c) Verify that there is a humidity demand displayed on the LCD screen of the humidifier.	☐
	d) Ensure that the water supply valve connected to the humidifier is turned on and that water is flowing directly to the humidifier water supply inlet. Ensure that the water shut off valve is turned off.	☐
	e) Verify the water level as water is filling the evaporation chamber by using the control panel to access the *WaterLevel* setting located in the *Physical IO* sub-menu of the *General* menu. Ensure that there are no water leaks along the water line.	☐
	f) If there is a humidity demand, the burner combustion blower(s) will start, and after approximately 90 seconds the combustion will start. From a cold water start, the humidifier will require 5 to 10 minutes to produce steam. The humidifier controller will indicate the water temperature and flue gas temperature.	☐
	g) During normal operation while steam is produced, the water temperature must be 212 ˚F (100˚C) and the flue gas temperature must be around 248 to 392˚F (120 to 200˚C). The water level percentage must not indicate less than 95%.	☐
	h) Once the evaporation chamber has been filled, observe for water, steam and flue gas leaks during several minutes of operation.	☐
Combustion Field Adjustment	2. Please refer to the *SKG4 Combustion Field Adjustment Instructions* enclosed in this package to perform this operation.	☐
Safety Test	3. Check the location of the Airflow switch in the system and its operation by stopping the fan. With no air movement, the humidifier should automatically stop.	☐
Drain and Reset	4. Turn off the humidifier by pressing and holding the Power button for 3 seconds.	☐
	5. Conduct a drain cycle by pressing and holding the Drain button for 3 seconds. Ensure that the evaporation chamber has been emptied.	☐
	6. Once the drain cycle is complete, restart the humidifier by pressing and holding the Power button for 3 seconds.	☐
	7. Reset the Airflow switch if needed.	☐
End	8. The humidifier is now ready for normal operation.	☐