

# Timer Installation and Setting Instructions

### HC-4000 Series HumidiClean Timer Installation Instructions - Time of Day Drain Timer

This bulletin should be used by experienced personnel as a guide to the installation and maintenance of HC-4000 Series HumidiClean Humidifiers. Selection or installation of equipment should always be accompanied by competent technical assistance. We encourage you to contact Armstrong or its local representative if further information is required.

#### NOTE: Read and Save These Instructions.



- 1. Turn off power to the humidifier at disconnect. Open the humidifier front door (HC41xx & HC43xx) or the low voltage and high voltage cabinets (HC4500).
- 2. Change DIP switch S2-7 to ON and S2-8 to ON. This sets the backup drain frequency to 96 hours.
- 3. Set the current day and current time on the timer (see timer setting instructions).
- 4. On the desired day(s), set ON time to start the drain event. On the same desired day(s), set timer OFF time, 6 or 7 minutes later than the start of the drain event time (see timer setting instructions). NOTE: Only one drain event cycle (on & off) is required per day. NOTE: Timer does not control length of draining time. DIP switch S2-5 and S2-6 controls draining time. Do not adjust these DIP switch settings during timer installation.
- 5. Prepare to attach the timer to the inside of the door using the self-adhesive hook and loop fastener (Velcro brand) by making certain the back of the timer and the inner door surface are clean and free from dirt and oil. Peel the backing from each type of fastener on the first set and firmly press each piece into place, one on the back of the timer and the other on the inside of the door in the area just below the Reset switch. Repeat with the second pair of fasteners being careful to align both types of fastener of the second set. Wait 10-15 minutes for adhesive to set before attaching the timer to the inside of the door. Adhesive bond reaches maximum strength after 24 hours.

- 6. Remove wire lead from bottom right terminal on the ON/TANK DRAIN switch (leftmost switch when viewed from inside the door) and attach this wire lead to terminal 4 on the timer.
- 7. Install a 6-8 inch (16-20 cm) wire from terminal 5 on the timer to the bottom right terminal on the ON/TANK DRAIN switch using a 1/4 inch spade quick disconnect on each end.
- 8. Install a 36-42 inch (92-107 cm) wire following the wire ties holding the ribbon cable between the LED board and the PCB Main board. Attach terminal 1 on the timer (using a ¼ inch spade quick disconnect) to terminal L1 on the over temperature PC board (using a #6 fork terminal).
- Install a 36-42 inch (92-107 cm) wire following the wire ties holding the ribbon cable between the LED board and the PCB Main board. Attach terminal 2 on the timer (using a ¼ inch spade quick disconnect) to terminal L2 on the over temperature PC board (using a #6 fork terminal).
- 10. Carefully restore power to the humidifier. Wait until the LED for STEAM GENERATION is lit for the second time before continuing with this installation. This step may take up to 10-30 minutes, depending on tank water level.
- Test timer and wiring connections by starting a drain event using the timer I AUTO O switch (see timer setting instructions). Slide this switch to the I (ON) position. A drain event will start. After 30-45 seconds, return this switch to the AUTO position for Humidifier unit operation.
- 12. Close all doors. Lock doors as applicable.
- 13. If timer is turned OFF, removed from operation, or no longer functioning, return DIP switch S2-7 and S2-8 to original settings.

## HC-4000 Series HumidiClean Timer Setting Instructions - Diehl Series 884 Timer

#### **Description of Slide Switches:**

Mode Switch has label: I AUTO O Set Switch has label: <sup>(b)</sup> RUN è

#### Set (or revise) Day and Time:

Slide set switch to B. Press 1...7 button until arrow points to the correct day (1 = Monday). Press h then m buttons to display correct time of day. AM/PM indicator displays PM for times between noon to 11:59 PM. Slide set switch to RUN position. Clock colon will blink.

#### Set Switch-On Event Day and Time:

Slide set switch to  $\grave{e}$ . A "1" indicates the first switch event and a light bulb indicates a Switch-on event (contacts 4-5 Normally Closed will open – unit draining will begin). Press 1...7 button until arrow(s) points to the selected day(s) for this event. Multiple day events are available by continuing to press the 1...7 button. Press h then m buttons to display Switch-on event time, noting AM/PM indicator. Program switch-on and switch-off events in pairs.

#### Set Switch-Off Event Day and Time:

With set switch at  $\grave{e}$ , press  $\grave{e}$  button, noting Switch-off event number. Number changes to "2" and light bulb disappears indicating Switch-off event (contacts 4-5 Normally Closed will close – after draining, unit will return to normal operation). Press 1...7 button to match day(s) set for switch event "1". Press h and m buttons to display Switch-off event time. Slide set switch to RUN. Clock colon will blink.

#### AutoRun:

Following setting time, day, and desired switch events, slide mode switch to AUTO and slide set switch to RUN. Timer switching begins with the next event set time.

#### **Override Timer ON:**

Slide mode switch to I. Timer switch event remains on indefinitely (contacts 4-5 Normally Closed will remain open - unit will drain and then remain idle without re-filling).

#### **Override Timer OFF:**

Slide mode switch to O. Timer switch event remains off indefinitely (contacts 4-5 Normally Closed will remain closed - timer-controlled unit draining will never occur).

#### Skip Event:

When in AutoRun mode, press X button. Timer starts the next programmed event. Normal timer operation will resume with the following event.

#### Setting Error:

If EEE appears, a setting error has occurred. The switch event number in error is displayed. Slide set switch to è. Press è button until event number is displayed. Review this and the following setting to correct error. Slide set switch to RUN.

#### **Revise any Programmed Event Setting:**

Slide set switch to è. Press è button to display switch event to revise. Re-program the event using the 1...7, h, and m buttons as before.

#### **Clear All Settings:**

To clear all settings, press the R button when set switch is in the RUN position. NOTE: This will clear all settings including the clock's day and time.