TC7D SERIES DIGITAL TIME CLOCK
Supplemental Installation Manual for Accessories

TC7D-W (Wall Mount)
TC7D-E (Enclosure)
WARNING

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS, OBSERVE THE FOLLOWING RULES:
Use the unit only in the manner intended by the manufacturer. If you have questions, contact the manufacturer.
Before installing, servicing or troubleshooting the transformer/relay package, switch power off at service panel and lock service panel to prevent power from being switched on accidentally.

CAUTION

More than one disconnect switch may be required to de-energize the equipment for servicing.
Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards, including fire-rated construction codes and standards.
When cutting or drilling into wall or ceiling, do not damage electrical wiring and other hidden utilities.
NEVER place a switch where it can be reached from a tub or shower.
Intended for use with 24 VAC Class 2 power supplies only.
Do not connect loads that exceed the timer’s switch rating.
Confirm sufficient 24 VAC power is available to operate the timer and the connected loads.
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1.0 OVERVIEW

1.1 SPECIFICATIONS

Operating Voltage: 24VAC 50/60Hz
Switching: Single Pole, Single Throw [SPST] (can be field-modified to Single Pole, Double Throw [SPDT])
Power consumption: 3.5VA
Switch rating: 10 Amps at 131°F
Operating Temperature Range: 14°F – 131°F
Connections (TC7D-W): (3) 16 GA pigtails (wire nuts not provided)
Connections (TC7D-E): (3) copper screw terminals
Setting Options:
- 8 pairs of on-off time of day cycles can be programmed.
- Each on-off cycle can be assigned to any one day of the week, or to the following groups of days: Monday – Friday; Monday – Saturday; Monday – Sunday; Saturday and Sunday.
- Program Reset button clears all settings.

Enclosure (TC7D-W): Requires a 4" x 4" electrical box by others.
- Box must accommodate (4) mounting screws (see drawing).
- Minimum box depth 1.5". White wall plate and mounting screws provided.

Enclosure (TC7D-E): NEMA 3R. (see drawing page 4)

1.2 DIMENSION DRAWINGS

FIGURE 1.2.0 TC7D-W WALL MOUNT DIMENSIONS
2.0 SETTINGS

2.1 SETTING INSTRUCTIONS

<table>
<thead>
<tr>
<th>Setting</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set Time and Day</td>
<td>Slide Set switch to (\bigcirc) press 1...7 button until arrow points to the correct day (1=Monday). Press h then m buttons to set correct time. PM indicator shows noon to 11:59 PM. Slide Set switch to Run. Clock colon will blink.</td>
</tr>
<tr>
<td>Set Switch “On” Cycle</td>
<td>Slide Set switch to (\bigcirc). A “1” indicates the first switch cycle and a “Bulb” indicates a switch-on (circuit closes). Press 1...7 button until arrows point to selected day(s) for this cycle. Press h and m buttons to show switch-on time, noting PM indicator.</td>
</tr>
<tr>
<td>Set Switch “Off” Cycle</td>
<td>With Set switch at (\bigcirc), press (\bigcirc) button, note switch cycle number changes to “2” and bulb blanks, indicating switch-off (circuit opens). Press 1...7 button to match day(s) set for switch cycle “1.” Press h and m buttons to select switch-off time.</td>
</tr>
<tr>
<td>Autorun</td>
<td>Slide Set switch to Run and Mode switch to Auto, switching begins with next switch-on set time.</td>
</tr>
<tr>
<td>Override “On”</td>
<td>Slide Mode switch to I. Switch remains on indefinitely (circuit closed).</td>
</tr>
<tr>
<td>Override “Off”</td>
<td>Slide Mode switch to O. Switch remains on indefinitely (circuit open).</td>
</tr>
<tr>
<td>Skip Cycle</td>
<td>In automatic run mode, press (x) button. The next calendar day is skipped.</td>
</tr>
<tr>
<td>Setting ERROR</td>
<td>If EEE appears, a setting error exists. The switch cycle number in error is shown. Slide set switch to (\bigcirc), press (\bigcirc) button until cycle is shown, review this and the following setting to correct error, slide set switch to Run.</td>
</tr>
<tr>
<td>Clear any setting</td>
<td>Setting slide set switch to (\bigcirc), press (\bigcirc) button to show switch cycle to clear. Press the (\bigcirc) button and the skip (x) button simultaneously, hold for several seconds.</td>
</tr>
<tr>
<td>Clear All</td>
<td>To erase all settings, Press R.</td>
</tr>
</tbody>
</table>
3.0 ELECTRICAL

3.1 ELECTRICAL SCHEMATICS

**NOTE:** There is a wire on the TC7D that connects terminal 1 to terminal 5. You must cut this wire to eliminate voltage to terminal 5.

**FIGURE 3.1.0 EV90, EV90P, EV130, EV200, EV240, EV300 SCHEMATIC**

**FIGURE 3.1.1 SL70 SCHEMATIC**

**FIGURE 3.1.2 EV450, HE1XIN AND HE1.5IN STANDARD WIRING SCHEMATIC**

**NOTE:** For EV450 and HE1XIN models built prior to 1/22/2011, please call RenewAire Customer Service at 800-627-4499 or email RenewAireSupport@RenewAire.com.

**NOTE:** There is a wire on the TC7D that connects terminal 1 to terminal 5. You must cut this wire to eliminate voltage to terminal 5.

The Normally Closed (N.C.) contacts of one or more additional Low Voltage Controls may be connected to ERV unit in parallel with the TC7D-E/W.
The Normally Closed (N.C) contacts of one or more additional Low Voltage Controls may be connected to ERV unit's Terminals 1 & 4. Do not apply power to these terminals.  

**FIGURE 3.1.3 EV450 ECM SCHEMATIC**

The Normally Open (N.O.) contacts of one or more additional Low Voltage Controls may be connected to ERV unit in parallel with the TC7D-E and TC7D-W.  

**FIGURE 3.1.4 HE1X AND HE1.5 ECM SCHEMATIC**

The Normally Open (N.O.) contacts of one or more additional Low Voltage Controls may be connected to ERV unit in parallel with the TC7D-E and TC7D-W.  

**FIGURE 3.1.5 HE1XRT, HE1.5RT WITH INDEPENDENT BLOWER CONTROL AND HE2X THROUGH LE10X SCHEMATIC**

When Normally Closed (N.C) contacts open at desired times, the thermostat will operate in Comfort Mode. When NC contacts are across RH-W thermostat terminals the thermostat will operate in Economy Mode which reduces the RH-W heater outlet set-point temperature by 8 degrees F.  

**FIGURE 3.1.6 RH-W ELECTRIC HEATER SCHEMATIC**

- NOTE: Remove supplied wires from the time clock spade terminals prior to wiring to a RH-W thermostat as shown.
- NOTE: For HE1XRT and HE2X through LE10X models built prior to 1/22/2011, please call RenewAire Customer Service at 800-627-4499 or email RenewAireSupport@RenewAire.com.
About RenewAire

For over 30 years, RenewAire has been a pioneer in enhancing indoor air quality (IAQ) in commercial and residential buildings of every size. This is achieved while maximizing sustainability through our fifth-generation, static-plate, enthalpic-core Energy Recovery Ventilators (ERVs) that optimize energy efficiency, lower capital costs via load reduction and decrease operational expenses by minimizing equipment needs, resulting in significant energy savings. Our ERVs are competitively priced, simple to install, easy to use and maintain and have a quick payback. They also enjoy the industry’s best warranty with the lowest claims due to long-term reliability derived from innovative design practices, expert workmanship and Quick Response Manufacturing (QRM).

As the pioneer of static-plate core technology in North America, RenewAire is the largest ERV producer in the USA. We’re committed to sustainable manufacturing and lessening our environmental footprint, and to that end our Waunakee, WI plant is 100% powered by wind turbines. The facility is also one of the few buildings worldwide to be LEED and Green Globes certified, as well as having achieved ENERGY STAR Building status. In 2010, RenewAire joined the Soler & Palau (S&P) Ventilation Group in order to provide direct access to the latest in energy-efficient air-moving technologies. For more information, visit: renewaire.com

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