



Model 70 Living Space Control Installation Manual

For use with Aprilaire® Central Dehumidifier
Models 1700, 1720, 1710, 1750, 1770, 1710A, 1750A, 1770A

WARNING

120 volts may cause serious injury from electrical shock. Disconnect electrical power to the furnace & air conditioner before starting installation. This Living Space Control is not a 120 volt (line voltage) device.

Improper installation may cause serious injury from electrical shock. This product must be installed by a qualified heating & air conditioning contractor in accordance with NEC Standards and applicable local and state codes.

SPECIFICATIONS

Low Dew Point Control Level ("MORE DRY" or 7 bars on display)	40°F
High Dew Point Control Level ("LESS DRY" or 1 bar on display)	65°F
Temperature Sensor Range	40°F to 100°F
Relative Humidity Sensor Range	30% to 100%
Temperature Storage Conditions	-30°F to 120°F
Relative Humidity Storage Conditions	0 to 100%
Supply Voltage (DC from Central Dehumidifier Control Board)	12 VDC

LIVING SPACE CONTROL INSTALLATION INSTRUCTIONS

STEP 1. CHOOSE A LOCATION TO MOUNT THE CONTROL

The Model 70 Living Space Control contains its own sensors that override the Aprilaire Central Dehumidifier main control sensors when connected and enabled. Therefore, the control should be located in an area (living room, master bedroom, etc.) where the homeowner wants to monitor and control moisture levels at a convenient location.

MOUNT CONTROL...

- Approximately 5 feet off the floor (refer to local codes for compliance with the Americans with Disabilities Act).
- On an interior wall where the humidity is representative of the home being dehumidified.
- At least 18 inches away from an outside wall.

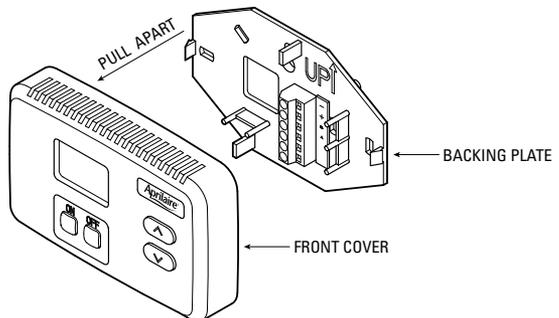
DO NOT MOUNT CONTROL...

- Behind doors, in corners or other dead air spaces.
- In direct sunlight, near lamps or other sources of heat.
- On an outside wall or any wall exposed to an unconditioned space (i.e. garage).
- In the airflow path of a supply register or near outside doors.
- On a wall where concealed pipes or ductwork will affect the control temperature and relative humidity accuracy.

STEP 2. DISASSEMBLE THE CONTROL

Carefully remove the front cover from the backing plate. See **Figure 1**.

Figure 1 – Disassemble the Control

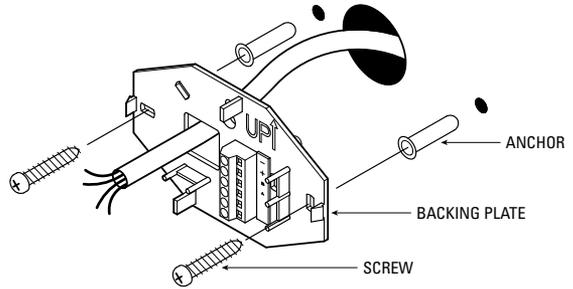


STEP 3. MOUNT THE CONTROL ON THE WALL

There are two mounting screws and two drywall anchors provided with the control. See **Figure 2**.

1. Route wires through square hole in backing plate. Level backing plate against wall and mark two of the mounting holes.
2. Drill two 3/16" diameter holes at the marked locations and install drywall anchors (included). Drywall anchors should be used unless installing on paneling or other hard surfaces. Anchors should be flush with the wall surface. (Note: Mounting holes on backing plate are designed to fit on a horizontal J-box.)

Figure 2 – Mount the Control



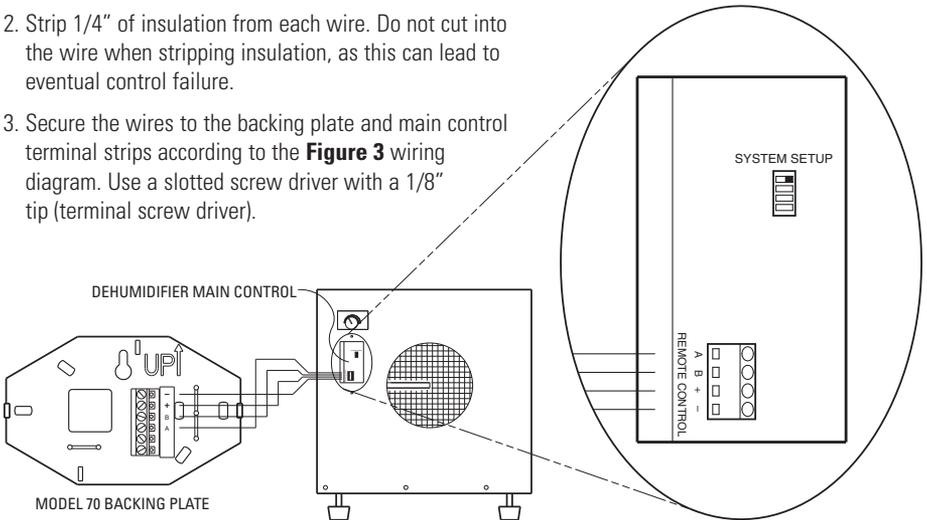
3. Secure the backing plate to the wall using the two screws (included). Make sure all wires extend through the square hole in the backing plate.

STEP 4. WIRE THE CONTROL

IMPORTANT! ENSURE THE POWER AT THE HVAC EQUIPMENT AND CENTRAL DEHUMIDIFIER IS OFF.

1. Strip 2" of cable insulation.
2. Strip 1/4" of insulation from each wire. Do not cut into the wire when stripping insulation, as this can lead to eventual control failure.
3. Secure the wires to the backing plate and main control terminal strips according to the **Figure 3** wiring diagram. Use a slotted screw driver with a 1/8" tip (terminal screw driver).

Figure 3 – Wire the Control



4. Slide excess cable back into the wire entry wall opening and fill the hole with insulation. Failure to seal the hole can cause drafts to enter the control and effect humidity (moisture level) sensing accuracy.

5a. **If connecting to a Central Dehumidifier with Integrated Sensor Control Board (Figure 4):**

Ensure that Switch 1 in the “SYSTEM SETUP” block on the Integrated Sensor Control Board has been set to “MODEL 70 ON”.

5b. **If connecting to a Central Dehumidifier with Removable Sensor Control Board (Figure 5):**

- There is no switch that is required to be moved as the dehumidifier auto senses the connection to a Model 70 during power up.
- In coastal areas, due to high concentrations of salt present in the air, we recommend removing the sensor board from the dehumidifier after the Model 70 is installed.

Figure 4 – Integrated Sensor Control Board

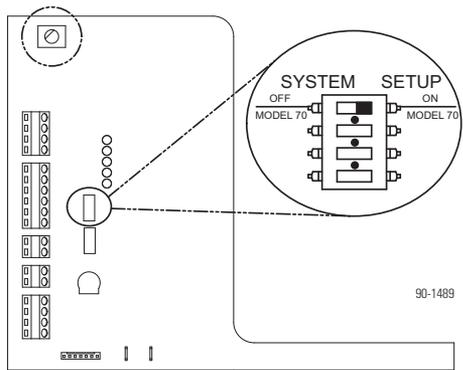
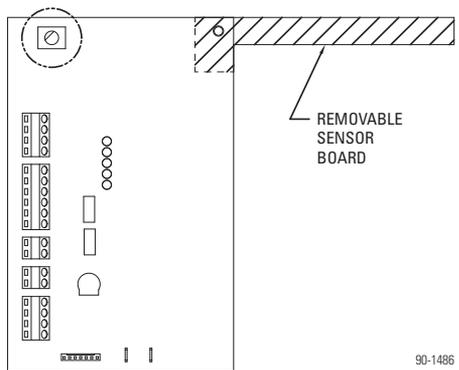


Figure 5 – Removable Sensor Control Board



STEP 5. REASSEMBLE THE CONTROL

No tools required – snap the front cover back on the backing plate, being careful to align the 6-pin terminal block on the cover with the receptacle on the backing plate.

STEP 6. PERFORM CHECK-OUT

1. Turn the HVAC equipment back on to normal operating set points.
2. Turn the Dehumidifier main power on using the toggle switch at the rear (outlet) of the unit.
3. Press the “ON” button on the Model 70 to allow the Dehumidifier to operate. The Model 70 Control should show a solid “ON” on the display.
4. The factory default setting is 3 bars. Adjust the ▲▼ buttons to obtain a different set point level, if desired. **NOTE: After initial power-up, the dehumidifier will not run until 2–6 minutes have elapsed for system initialization.**

RESEARCH PRODUCTS CORPORATION

1015 E. Washington Ave. • Madison, WI 53703 • Phone: 608/257-8801 • Fax: 608/257-4357 • www.aprilaire.com