



User's Manual

Version 5.0 Release 004

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1. WARNINGS, ENVIRONMENTAL POLICY AND CERTIFICATIONS

1.1. Warnings

For your safety and the equipment protection, follow the following instructions:

- Do not operate the system when wet or with wet hands.
- Connect the power supply cable, before connecting the AC power.
- Perform any connection or disconnection with the power supply powered off.
- Verify that there is no short circuited connection in the connectors between different cables or with ground.
- Verify for any abnormality in the wiring.

1.2. Environmental Policy



Do not ever dispose of this equipment with household waste. Electrical and electronic products contain substances that can be harmful to the environment if they are not given proper treatment. The symbol of the crossed container indicates separate collection of electronic equipment, unlike the rest of urban garbage. For proper environmental management, the equipment to be disposed must be taken to the proper collection center at the end of its lifespan.

The components part of this equipment can be recycled. Therefore, follow the existing regulations on environmental protection in your area.

The unit must be delivered to your dealer if it is being replaced or sent to a specialized collection center if discard.

1.3. Certifications



FCC verification:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

UL verification:

Temperature Indicating and Regulating Equipment, Airzone System, which is comprised of a Master Control Unit Model CINNPL, a zone thermostat Model TINNPLTB and a zone control unit Model MINNPL.

This investigation is conducted in accordance with the UL Standards for Solid State Appliance Controls, UL244A and Temperature Indicating and Regulating Equipment, UL 873.

2. OVERVIEW

Thank you for purchasing the iQ Zone system. As one of the most advanced systems on the market, it provides you with the most comfortable temperature for each room or group of rooms independently.

When the system is installed in your home, all of the individual spaces are grouped into two to eight separate zones. Each zone typically includes at least one room and several supply registers. The controls installed with the system have been configured to reflect this zone grouping. Each zone has also been assigned a “weight” which roughly indicates its percentage of the overall home floor space.

The system is provided with one thermostat in each zone so that you can set the desired temperature and other features.

iQ Zone allows you to:

- ✓ Turn off the cooling and/ or heating of empty rooms so that you can **use energy efficiently**.
- ✓ iQ Zone **takes advantage of the location and environment of each room**. For instance, a room that is situated in a shaded area requires less cooling power in order to lower the room’s temperature, while rooms exposed to full sunlight, usually require less power to heat them up.
- ✓ iQ Zone uses one iQ controller, and several small thermostats, which have **unobtrusive and simple designs with low visual impact** so that they do not affect the decoration style of your home.

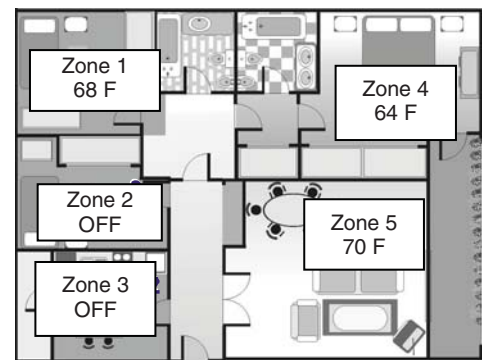


Fig. 1 – Typical Zone Assignment for a Home

3. iQ CONTROLLER

Every iQ Zone system has one iQ Controller as well as local zone thermostats. Note that you always have the choice between operating the system by zones as described in this document, or operating as a single entity like a typical non-zoned system (by temporarily disabling zone control operation). See iQ Drive User’s Manual for details of its operation.

4. LOCAL ZONE THERMOSTATS

4.1. Thermostat Display Icons

It is important to become familiar with the symbols that you will see on your thermostat. Review Figure 2 below to help understand what you see in the display screens.

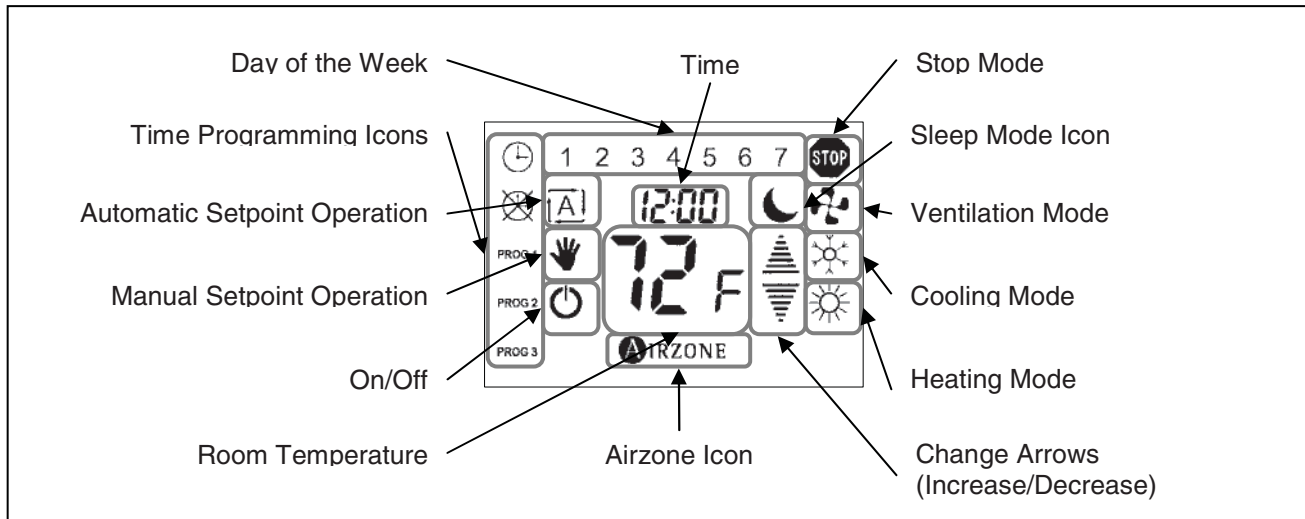


Fig. 2 – Summary of Zone Thermostat Display Icons

4.2. Mode Display

Icon identification:





- Stop mode 
- Ventilation Mode 
- Cool Mode 
- Heat Mode 



Fig. 3 – Normal Screen in Cool Mode
(Manual Setpoint Control Example)

When the system is operating, one of these icons will be displayed on the right side of the zone thermostat. (The stop icon is reserved for a forced stop situation, such as a fire alarm.)

Time of day and day of the week (single number 1 – 7, at the top of the display) are set and may be changed from the iQ Controller. They cannot be changed from the local zone thermostats. Note that time is always shown in “military format” (00:00 to 24:00).

NOTE: The operating mode can only be set with the iQ Controller. This includes HEAT, COOL, E-HEAT (for heat pumps), AUTO (auto changeover between heating and cooling), FAN ON (system-wide ventilation), and zone control enabled or disabled. Other options are available as well. See the User's Manual for that device for further information.

4.3. Activating and Deactivating a Zone

If you do not wish to provide heated or cooled air to a particular zone, you can deactivate that zone. Note that any deactivated zone will still have air provided to it under certain circumstances, including:

- if the iQ Controller system is set to enable system-wide ventilation (Fan Mode = ON)
- if zone control operation is disabled via the iQ Controller
- when dehumidifying in cooling mode
- during a defrost operation (heat pumps only)

The thermostat will display one of the following screens depending on if it is set to ON or OFF, and if the zone is set for automatic or manual set point operation. Be aware that in the ON mode some additional symbols may show, indicating the active mode of operation (cooling or heating), sleep mode, and/or ventilation operation.

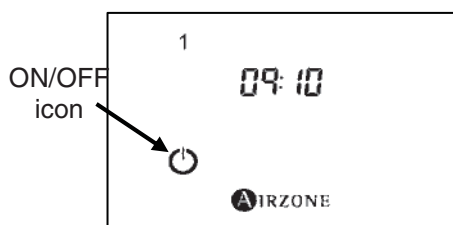


Fig. 4A – Zone OFF



Fig. 4B – Zone ON
(Manual Set Point Control)



Fig. 4C – Zone ON
(Auto/Program Set Point Control)

To activate a zone that is off, simply touch the ON/OFF icon briefly. The thermostat will change to the User Setup screen (shown below) for 5 seconds, then return to the appropriate Zone ON screen shown above. There are two User Setup screens, depending on whether Manual Set point Control or Automatic Set point Control is in use (Figures 5A versus 5B below).



Fig. 5A – User Setup Screen
(Manual Set Point Control)

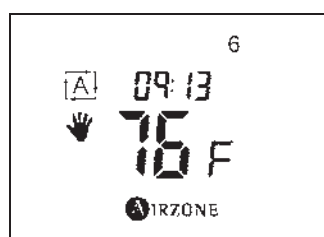


Fig. 5B – User Setup Screen
(Automatic Set Point Control)

To turn off an active zone, first make a brief touch anywhere in the screen to view the User Setup screen shown above. This screen will be displayed for 5 seconds, during which time a touch to the ON/OFF icon will deactivate the zone. When the zone is deactivated, it will show the Zone OFF screen (Figure 4A).

4.4. The User Setup Screen

For the user to make a change in his/her preferences for a particular zone, it is necessary to enter the User Setup Screen in that zone's local thermostat. From the Normal Screen (Figure 3), a brief touch anywhere on the screen will enable the User Setup Screen (Figure 5A or 5B). From this screen the zone can be turned off, or, with Manual Set point Control, the Set point can be adjusted.

4.5. Temperature Set Point - General

With the iQ Zone system there is a single temperature set point which applies at any time for either heating or cooling. If AUTO (auto changeover) mode is selected at the iQ Controller, the selection between starting in heating and cooling is made based on whichever demand is greater at the time.

If a zone thermostat is turned off (deactivated), it remembers the set point (either manual or automatic) and re-applies it when that zone is turned back on. Set point adjustment may be manual or automatic, as described in the following sections. Note that it is possible to have some zones under manual control and some under automatic control.

Note that the system may not appear to respond immediately to a change in set point. First of all, in order for a system which is off to start up, a minimum start demand (created by the difference between each zone's room temperature and its set point) must exist. If the demand is too small, it may not start. Secondly, the zone will not be provided with air flow until all of its dampers have opened (usually this takes a few seconds per damper).

4.6. Adjusting the Temperature Set Point – Manual Control

In order to adjust the temperature set point manually, the control must be (a) in the Manual Set point mode, and (b) turned on (activated, as described above). The screen should appear with the "hand" icon appearing to the left of the temperature value in the normal ON screen, as in Figure 6B.

If it is not already in Manual Set point mode, check that the zone is off (as in Figure 4A). If not, shut off the zone by (a) touching anywhere in the screen, then (b) touching the ON/OFF icon. With the zone off, touch the Airzone icon once. This will display a "hand" icon and an "A" in a box above the blinking ON/OFF icon (as in Figure 6A below). Touch the hand icon to select Manual Set point control. The zone will also be activated. After a couple of seconds the screen will show the "hand" icon as in Figure 6B along with current room temperature.



Fig. 6A – Control Mode Selection Screen



Fig. 6B – Manual Mode Active



Fig. 6C – Manual Set Point Adjustment

In order to view and/or adjust the temperature set point when the zone is active (as in Figure 6B), first go to the User Setup screen by touching the screen once. The temperature set point is now displayed, and it may be adjusted up or down by briefly touching the up arrow or down arrow displayed on the screen as in Figure 6C. The set point will change in increments of 1°F. After three seconds, the thermostat will return to the normal screen, showing the ambient temperature as in Figure 6B.

4.7. Automatic (Programmed Schedule) Temperature Set Point Control - Overview

Automatic set point control is most advantageous when the desired changes to the set point are very repeatable day to day throughout a season. Some homeowners may simply want to use automatic set point control as a matter of personal preference. This feature may be activated for all, some, or none of the zones. In order for this feature to operate, the user must create (by making entries at the zone thermostat) set point schedules or “programs” for any of the following days or groups of days:

- Individual days 1 through 7 (where 1 = Monday, 7 = Sunday, etc.)
- Days 1-5 (weekdays)
- Days 6-7 (weekends)
- All days 1-7 (every day)

For any of the above, up to three time blocks called “programs” may be defined (by making entries at the zone thermostat). Each of these time blocks is associated with a temperature set point. Note that it is not necessary to set up all of the days with programs nor is it necessary to set up all three programs for any day. The time spans of the different programs may overlap within a day, and a day may be covered by both an individual day program and by a group of days program. The temperature set point which will be used at any particular time is determined based on priority (explained later). If there is time within a day or a day within a week that is not covered by at least one program, the zone is turned off (deactivated) for that period. By wise planning and usage of these programs, taking into account their priorities, one can create personalized setback schedules with as many as 6 automatic set point changes occurring in one day.

Once entered, any of the programs for any of the days or group of days may be later modified or temporarily turned off. Since the same set point is used for both heating and cooling, it is likely that you will want to change the program schedules at least a couple of times a year.

In general, setting up schedules involves the following steps for each zone for which automatic set point control is desired:

- Plan out the schedules you want to use.
- Turn off (deactivate) the local zone thermostat.
- Enter the program schedule mode on the thermostat.
- Select the day or group of days to which the schedule will apply.
- Create one, two, or three “programs” (**PROG 1**, **PROG 2**, **PROG 3**) which are to apply to that day or group of days, specifying for each:
 - Time of day when that program schedule starts
 - Time of day when that program schedule stops
 - A temperature set point value for that program, for the time block defined

- Exit the program schedule mode.
- Enable Automatic Set point Control operation (as opposed to Manual Control).
- Turn on (activate) the zone.
- Repeat the process for any other day or group of days as desired.

4.8. Switching the Automatic Set point Control

In order to run the zoning system utilizing program scheduled temperature set points, the control must be (a) in the Automatic Set point control mode, and (b) turned on (activated, as described above). The screen should appear with the “A” in a box icon appearing to the left of the temperature value in the normal ON screen) as shown in Figure 7A below. The following assumes that a program schedule has already been set up.

If it is not already in Automatic Set point control mode, check that the zone is off (as in Figure 4A). If not, shut off the zone by (a) touching anywhere in the screen, then (b) touching the ON/OFF icon. With the zone off, touch the Airzone icon once. This will display an “A” in a box and a “hand” icon above the blinking ON/OFF icon (as in Figure 7A below). Touch the “A” in a box icon to select Automatic Set point control. The zone will also be activated. After a couple of seconds the screen will show the “A” in a box icon as in Figure 7B along with current room temperature.



Fig. 7A – Control Mode Selection Screen



Fig. 7B – Automatic Mode Active



Fig. 7C – Viewing Programmed Set Point

In order to view the programmed temperature set point when the zone is active (as in Figure 7B), go to the User Setup screen by touching the screen once. The temperature set point as determined by program schedules is now displayed (Figure 7C) along with the ON/OFF icon. Note that if no temperature value appears, there is no schedule entered that turns this zone on for the current time and day. After three seconds, the thermostat will return to the normal screen, showing the ambient temperature as in Figure 7B.

4.9. Automatic Set Point Control – Preparation and Planning

4.9.1. Set point changes within a day

The planning process should be considered for each zone separately. However, at first it may be easiest to assume that all zones will follow the same set point schedule through each week. At the end of the process you can adjust the zones to individualize them.

The first step in creating a set point control plan is determining if there are times during each week when you want the zone to be off. (For the rest of the time, assume you will use a “baseline” set point from which you will take exceptions.) Next assign a single set point for

each day as if only one value could be used (for the time when you want the system to be providing air to that zone). This will be used for the lowest priority program, **PROG 3**. This baseline would usually define operation that applies for the longest time in any day. Often it will cover an entire day or group of days (from start time 00:00 to end time 23:59 every day). Then consider for each day if and for what times you want to take exception to this single baseline set point. You will have two different values you can use for exceptions, and the duration of these exceptions would normally be less than that of **PROG 3**. Typically it is desirable to start and end the day with the same set point. Exceptions usually are applied for a narrower time span, embedded within the time span defined for **PROG 3**. Use **PROG 2** to make an exception (apply a different set point) that starts later than and ends before **PROG 3**. Use **PROG 1** to make another exception that starts later than and ends before **PROG 2**. Thus, **PROG 1** will typically have the narrowest time span.

Figure 8 provides five examples of program schedules. **Example #1** illustrates a simple single set point schedule which does not span an entire day. During the times 00:00 to 05:00 and 20:00 to 23:59 this zone will be off. For a single level set point either **PROG 1**, **PROG 2**, or **PROG 3** could be used. But if **PROG 3** is used, as in this example, it is easier to add exceptions (higher priority set point blocks) later.

Example #2 first of all expands the base set point (**PROG 3**) to cover the entire day. A schedule from 00:00 to 23:59 will carry over to another day with the same schedule without interruption. Such a time span should be used to apply a base set point to blocks of days (1-5, 6-7, or 1-7) without interruption. An exception to that set point, **PROG 2**, at 73°, operates for a part of the day within the longer time span of **PROG 3**.

Example #3 shows two levels of exception to the base set point schedule (**PROG 3**). **PROG 2** is given preference over **PROG 3**, and **PROG 1** takes precedence over the other two. This example is for cooling; a different schedule would most likely be set up for heating. Notice the “inverted wedding cake” form, with PROG levels nested within each other. This example shows that up to 6 changes in set point can be programmed to occur in one day. Exceptions (higher priority PROG levels) may use higher or lower set points than lower priority PROG levels.

Example #4 shows a schedule in which the two typical setback times (night time and midday) have the same set point, 74°, and the most active times (morning and evening) use different set points (72° from **PROG 2** in the morning and 71° from **PROG 1** in the evening). The thick lines represent the set point temperatures. In this case **PROG 1** and **PROG 2** are interchangeable since they don't overlap. The **PROG 3** set point (74°) carries through midnight without interruption (if this is applied for consecutive days).

Example #5 shows a schedule in which the two typical setback times (night time and midday) have different set points, 74 and 76°, and the most active times (morning and evening) use the same set point (72° from **PROG 2**). The thick lines represent the set point temperatures. Note that during the midday, highest priority **PROG 1** set point (76°) overrides the other two. The **PROG 3** set point (74°) carries through midnight without interruption (if this is applied for consecutive days).

4.9.2. Set point changes within a week

In a similar manner, there are different program schedule options for days of the week: plan to apply a “baseline” daily schedule (as described above) to the entire week (days 1-7), to weekdays (days 1-5), and/or to weekends (days 6-7). Then, if you wish to make an exception to that multi-day schedule, add a program schedule for an individual day (1 or 2 or 3, etc.). A

program entered for any single day will take precedence over a program entered which covers the same day as part of a group of days.

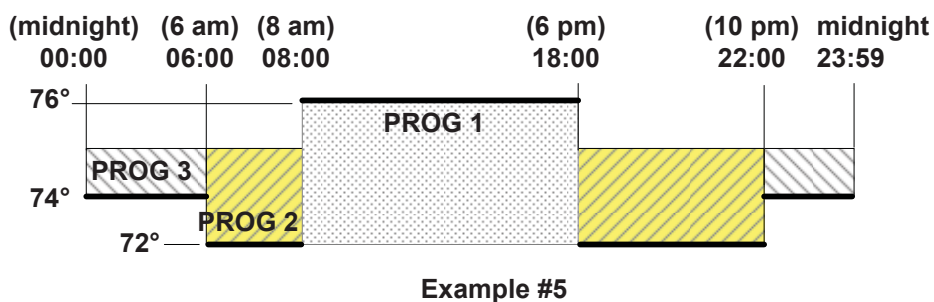
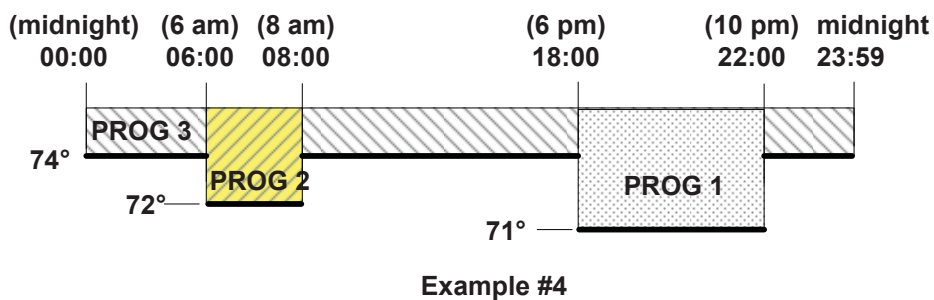
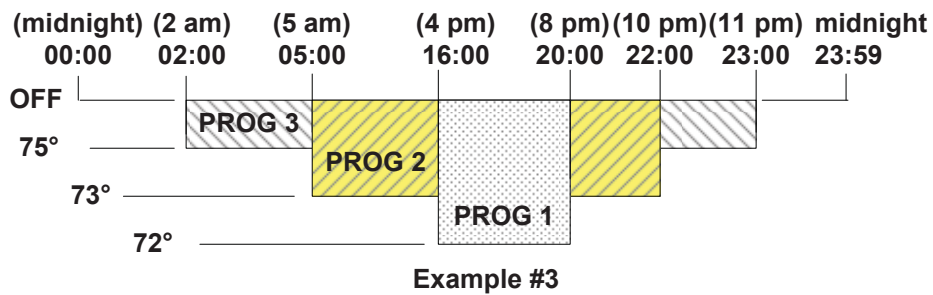
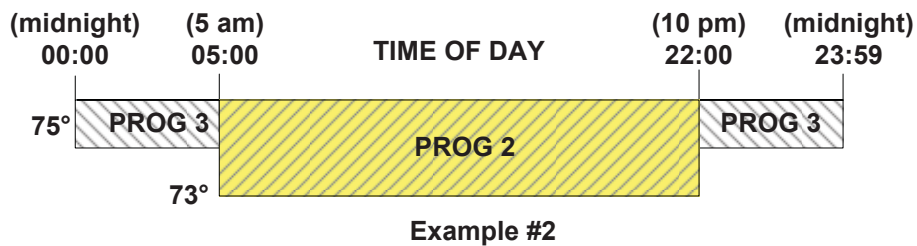
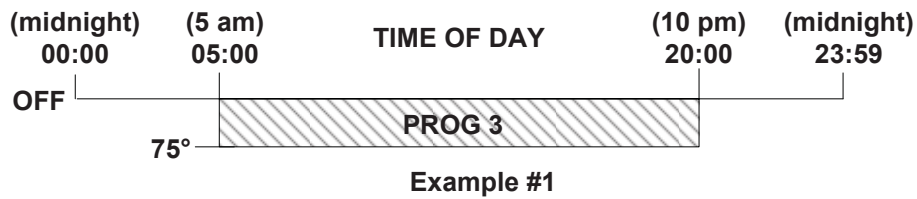


Fig. 8 – Programming examples for Automatic set point control (Cooling)

4.9.3. Planning

Now, for the program schedule(s) you will be creating, fill out a table similar to the following, which describes **Example #3** above, applied to every day. Note that times must be entered as “military time”:

Day(s)	Program (1, 2, or 3)	Start Time	Temperature Setpoint	End Time
1234567	1	16:00	72°	20:00
	2	05:00	73°	22:00
	3	02:00	75°	23:00

4.10. Automatic Set Point Control – Procedure for Entering a Schedule

Preparation. Before creating a time schedule program, be sure the thermostat is showing the time and day of the week. (These are set in the iQ Controller.) Otherwise schedule programming will be prevented. Following the guidelines explained in the preceding section (Preparation and Planning), write down all of the information that describes the schedules you will enter in the form of a table. (You can always go back and add to or adjust them later.)

Turn Off the Local Zone Thermostat. If a temperature is displayed, shut off the thermostat for the zone you will be programming by (a) touching anywhere in the screen, then (b) touching the ON/OFF icon. (See Activating and Deactivating a Zone) Wait 3 seconds for the display to return to the Normal Screen.

Enter the Program Schedule Mode. Briefly touch the Airzone icon once to enter into the program scheduling screens. The symbol of a clock face will appear in the upper left corner of the screen, and the ON/OFF icon will be blinking. Touch the clock icon briefly once. (Touch the Airzone icon again at any time to escape from the programming process.)

Select the Day(s) For the (First) Schedule. See Figure 9. “1” will appear, blinking, in the day of week part of the screen (for Monday), along with the up and down arrows. Select the day(s) you wish to enter a program for, and then touch the Airzone icon to save it and proceed. Touching ▲ will advance through 1, 2, 3, 4, 5, 6, 7, then 12345, then 67, then 1234567, then 1 again, etc. Touching ▼ will go backwards through the list. For example, touching ▼ once will change from 1 (Monday) to 1234567 (all week) in one touch. Note that in order to enter or view a schedule for a *different* day or set of days, you must escape and start the process from the beginning.

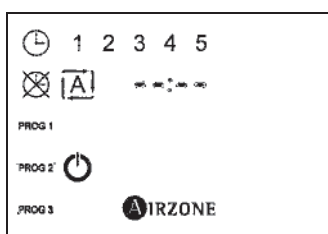


**Fig. 9 – First Program Schedule Screen:
Day Selection (default Monday shown)**

If the ON/OFF icon is not displayed at this time, you have forgotten to turn off the zone. You may view programs but not enter or change them if this is the case. Touch the Airzone icon to return to the Normal Screen at this point.

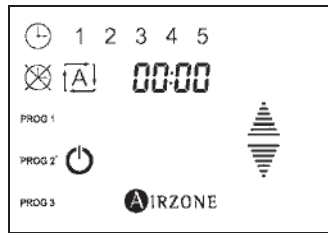
Select the Program to View, Enter, or Change. After the day has been selected, both the clock symbol and “**PROG 1**” will flash, and “**PROG 2**” and “**PROG 3**” appear. Touch any of these to view, enter, or change that program. The selected one will flash (“**PROG 1**” by default). Note that you may view, enter, or change any or all of these *for the selected day(s)* without leaving the programming process. See Figure 10.

If a program has already been entered for one of these *and* if it has not been turned off, the temperature set point will appear after the “PROG” number has been selected (touched). Conversely, if no temperature set point appears, either no program has been entered *or* its program has been turned off.

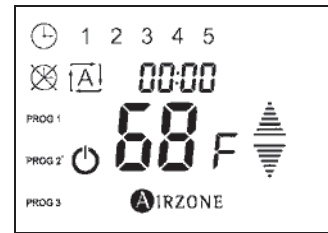


**Fig. 10 –Program Schedule Screen:
Program Selection (All weekdays shown)**

Entering a New Program. For the selected “PROG” number, touch the ON/OFF icon once. With the clock icon in the corner flashing (for start time), the hour value will now flash. Touch the ▲ or ▼ as needed to set the hour for the program start time. Touch the Airzone icon once to save it. Next the minute’s value will flash. Touch the ▲ or ▼ as needed to set the minutes for the start time. Touch the Airzone icon once to save it. Refer to Figure 11A. Next the temperature set point will flash. Touch the ▲ or ▼ as needed to adjust the set point for this program time block. Touch the Airzone icon once to save it. Refer to Figure 11B.



**Fig. 11A – Program Schedule Screen:
Time Selection**



**Fig. 11B – Program Schedule Screen:
Temperature Set Point Setting**

Now the clock icon with the “X” through it will flash (for end time). Touch the ▲ or ▼ as needed to set the hour for the program end time. Touch the Airzone icon once to save it. Next the minute’s value will flash. Touch the ▲ or ▼ as needed to set the minutes for the end time. Touch the Airzone icon once to save it.

The program has now been entered and saved. Touch another “PROG” number to enter it in the same manner, or touch the Airzone icon again to exit the process.

Turning Off and Turning On an Entered Program. To turn off a program which has been entered (without clearing the entries), follow the above procedure up to Entering a New Program. When the program you wish to disable is displayed (start time and set point showing), simply touch the ON/OFF icon at this point in the process. The set point will then disappear. Note that there is no other indication that a program has been entered. Touch the Airzone icon again at any time to escape from the programming process.

To restore a program which has been entered but turned off, follow the above procedure up to Entering a New Program. Simply touch the ON/OFF icon when the “PROG” number you wish to re-enable has been selected and is flashing. The set point and start time will then reappear.

Exit the Program Schedule Mode. At any point in the above steps, touch the Airzone icon again. The Normal Screen will again be displayed.

Repeat for Additional Program Schedules. Repeat the above steps as necessary to enter all of the schedules that have been planned. Note that for typical temperate climates it may be appropriate to modify the content of program schedules with the seasons.

Enable Automatic Set point Control. See **Switching to Automatic Set point Control** above.

4.11. Automatic Set Point Control – Viewing an Existing Program Schedule

Enter the program scheduling mode as described in the preceding section. Next, select the day or days for the schedule you wish to view. Once a “PROG” number is flashing, the start time and temperature set points are displayed if a schedule has already been created and applied to the selected day(s). (Note that schedule information will *not* be displayed if the program has been turned off.) Touch the clock icon with the “X” through it to view the

program block end time. Touch the Airzone icon again at any time to escape from the programming screens.

4.12. Automatic Set Point Control – Modifying an Existing Program Schedule

To change a program which has been entered, follow the above procedure up to Select the Program to View, Enter, or Change. Select (touch) the “PROG” number you wish to change. It will flash.

To modify the start time, touch the clock icon in the corner if it is not flashing. Now touch the hour’s value for about 1 second. The number will start flashing, and the ▲ or ▼ icons will appear. Touch these as needed to change the value, and then touch the Airzone icon to save the new entry. The minute’s value will now start flashing. Use the ▲ or ▼ icons to change the value (if desired), then touch the Airzone icon to save the new entry.

To modify the temperature set point, touch the set point value for about 1 second. The number will start flashing, and the ▲ or ▼ icons will appear. Touch these as needed to change the value, and then touch the Airzone icon to save the new entry.

To modify the program end time, touch the clock icon with the “X” through it. It will now flash. Now touch the hour’s value for about 1 second. The number will start flashing, and the ▲ or ▼ icons will appear. Touch these as needed to change the value, and then touch the Airzone icon to save the new entry. The minute’s value will now start flashing. Use the ▲ or ▼ icons to change the value (if desired), then touch the Airzone icon to save the new entry.

5. SLEEP MODE (ONE TOUCH SETBACK)

This feature provides an easy way to trigger a temperature set point shift, typically used to conserve energy such as when the home is unoccupied during the day. The set point shift is in the direction which will save energy (increasing when cooling, decreasing when heating). When activated, it will change the set point temperature by 1°F every 30 minutes until the set point has changed by 4°F. When deactivated, the set point temperature will return to the original value (set by the manual or automatic method). Sleep mode will work in both manual or automatic set point operation.

5.1. Activating Sleep Mode

The zone to which you want to apply Sleep Mode must be turned on (active). To enter Sleep Mode touch the Airzone icon on the screen twice. A mode selection screen will be displayed including the ventilation and sleep icons as shown in Figure 12A. Touch and hold the Sleep Mode icon (crescent moon) for 3 seconds. The Sleep Mode icon will now continue to be displayed after the screen reverts to the Normal Screen (Figure 12B). (Figures 12A and 12B illustrate the screens with Manual Set point Mode as an example.)



Fig. 12A – Activating Sleep Mode

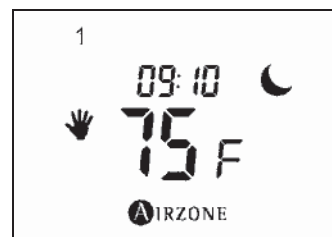


Fig. 12B – Normal Screen in Sleep mode

5.2. Cancelling Sleep Mode

To exit Sleep Mode, touch the Airzone icon once, then touch and hold the Sleep Mode icon (crescent moon) for 3 seconds. The Sleep Mode icon will now disappear, and the temperature set point will return to that determined by either manual or automatic set point control. A few seconds later the thermostat will return to the Normal Screen (Figure 4B).

6. LOCAL VENTILATION MODE

If heating and cooling equipment are off due to no demand, or the iQ Controller is in the OFF mode, fan operation (ventilation) may be enabled for individual zones. This Local Ventilation mode allows some zones to see air circulation while others do not.

(This is different from System-wide Ventilation, which provides air to all zones, regardless of whether or not they are turned on at the local thermostats. System-wide ventilation can only be turned on at the iQ Controller.)

6.1. Activating Local Ventilation Mode

A zone must be turned on for Local Ventilation to be available. To activate Local Ventilation Mode, touch the Airzone icon on the screen twice. A mode selection screen will be displayed including the ventilation and sleep icons as shown in Figure 13A. Touch and hold the Ventilation icon (fan symbol) for 3 seconds. The Ventilation icon will now continue to be displayed after the screen reverts to the Normal Screen (Figure 13B). (Figures 13A and 13B illustrate the screens with Manual Set point Mode as an example.)



Fig. 13A – Activating Local ventilation



Fig. 13B – Normal Screen in Ventilation Mode

6.2. Cancelling Local Ventilation Mode

To cancel Local Ventilation Mode, touch the Airzone icon once, then touch and hold the Ventilation icon (fan symbol) for 3 seconds. The Ventilation icon will now disappear, and local ventilation for this zone will be disabled. A few seconds later the thermostat will return to the Normal Screen (Figure 4B). Note that the Ventilation icon will (still) appear in the Normal Screen whenever *System-wide* Ventilation is operating, regardless of the Local Ventilation setting.

7. ACCESSING ANOTHER ZONE FROM ANY THERMOSTAT

Each Airzone thermostat within a home system is capable of controlling the functions of any other thermostat (zone) in the zoning system, thus allowing the user to make changes which apply to any part of the house without the need to go to each individual thermostat.

In order to have access to settings for another zone, touch the screen once to enter User Setup Mode. Next touch on the temperature number in the display for a couple of seconds until the time display changes to "Zone" (Zone). First the local zone number (the one to which the thermostat you are working with is connected) will be briefly displayed, without the ▲ and ▼ arrows. Then the first available zone number other than the "local" zone appears in place of the temperature value, with the ▲ and ▼ arrows as in Figure 14 below. Touch the ▲ or ▼ arrow to select the number of the zone you wish to access. Confirm your selection with a touch to the Airzone icon. Or touch the ON/OFF icon to escape and return to the local zone display immediately.



Fig. 14 – Remote access to Zone 3

The display will show the User Setup Screen of the remote thermostat, as shown in Figure 15 below, indicating the Zone number when the time is normally shown. In the figure, "Z 3" indicates "Z 3", zone number 3.

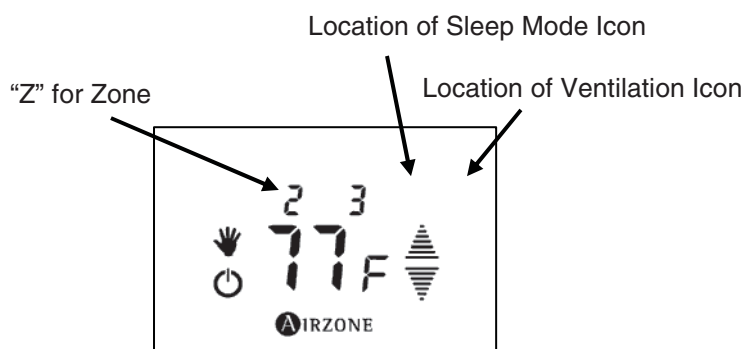


Fig. 15 – User setup screen for zone 3, remotely accessed

The following may be changed or selected remotely at this time:

- 1) Zone On or Off status. Turn the zone on or off by touching the ON/OFF icon, then touch the Airzone icon to save.
- 2) Set point Temperature. If the remote zone is showing the "hand" icon for Manual Set point Control, the set point may be adjusted by touching the ▲ and ▼ arrows. Then touch the Airzone icon to save.
- 3) Set point Control Mode. To switch from Manual to Auto Set point Control (or vice versa), touch the hand or "A" in a square icon, whichever is showing. The other icon will appear. Touch the appropriate icon to select the desired Set point Control Mode, then touch the Airzone icon to save.
- 4) Sleep Mode. Sleep mode may be enabled or cancelled by touching the moon icon (if it is showing from being already enabled) or by touching the spot where the icon will appear for about 2 seconds. See Figure 15. Touch the Airzone icon to save.
- 5) Local Ventilation Mode. Local zone ventilation may be enabled or cancelled by touching the fan icon (if it is showing from being already enabled) or by touching the spot where the icon will appear for about 2 seconds. See Figure 15. Touch the Airzone icon to save.

NOTE: Only one change can be done at a time. Once the change has been done, it must be confirmed by pressing the Airzone icon. After 5 seconds, the thermostat will return to the Normal Screen (Figure 3).

8. TEMPERATURE MEASUREMENT

Airzone thermostats are provided with an internal temperature sensor which measures the local room temperature. Heating or cooling operation is based on this measured temperature and the associated set point temperature for each individual active zone, as well as for the combination of all active zones at any time.

9. LOCATION OF THE THERMOSTATS

An important consideration for correct operation of the system is the location of the thermostats, and this will influence the performance of the system significantly. The ideal location for each zone thermostat is:

- on interior walls within the house or building
- in an area with air circulation
- away from direct blowing streams of heated or cooled air
- away from other heat sources, such as ovens and clothes dryers
- away from exposure to direct sunlight or spotlights

10. ACCESSORIES

The installing contractor may have added other accessories to complete your installation. These may include:

- indoor remote temperature sensor(s)
- window or door interlock switches
- room occupancy sensors

Be sure to discuss the operation of these with your contractor.

11. SYSTEM ERROR INDICATIONS

Zone system errors are made apparent either by (a) "ZONE MODULE FAULT" displayed on the top line of the iQ Controller, or (b) "Err" appearing in place of the time on a zone thermostat, as shown in the example in Figure 16 below. In general, these may indicate a problem with the wiring that interconnects zone modules and/or thermostats, or a problem with a damper motor. In some cases the problem will resolve itself, and the indication will disappear. If the fault indication persists, contact the contractor that installed your system or an other iQ-certified HVAC service contractor.

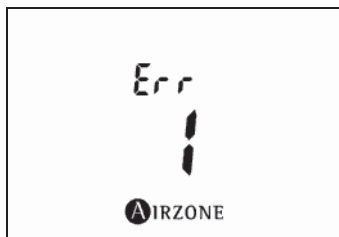


Fig. 16 – Typical Error Indication in Zone Thermostat



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667D-0111

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Printed in U.S.A. (01/11)