



**November 30, 2010**

## **AH66T Multi-Zone Control Using IR Commands**

### **PURPOSE**

This bulletin explains how to control multiple zones using a single IR input into the AH66T.

### **How It Works**

Each zone of the AH66T has a 3.5 mm mono IR input jack. Generally, any IR command that comes in on a specific zone's IR Input jack only affects that zone.

For example, if a volume up command is sent in on Zone Two's IR input jack, Zone Two's volume goes up; if a source three select command comes in on Zone Five's IR input jack, Zone Five switches to source three. This is the **normal state** for zone control.

However, the AH66T's IR command set includes commands that "tell" the AH66T that the next command or series of commands that it receives are intended for a particular zone, not necessarily the zone that actually receives the IR command. These are called "Control Zone" commands.

So, with a single IR input connection and a properly programmed remote, multi-zone control is quite simple.

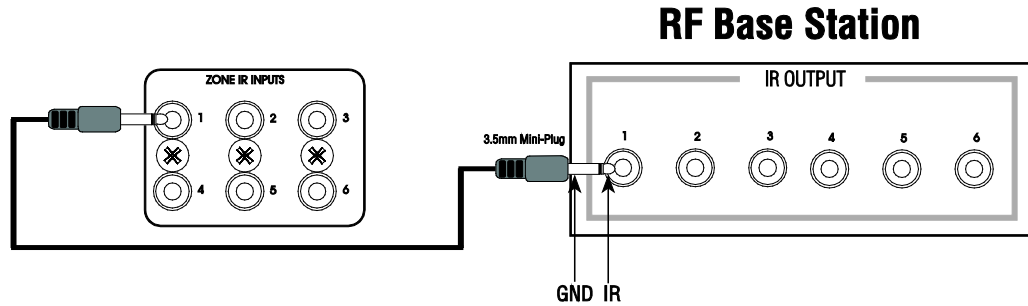
The following pages will explain how to use these "Control Zone" commands to allow you to use one IR input of the AH66T to control multiple zones.

The complete set of AH66T IR codes in CCF format can be found at [www.atonhome.com](http://www.atonhome.com).

# Connections and Programming

## IR Connection to the AH66T

Connect the IR output of the controlling device (typically an RF to IR base station and RF remote), to any one of the available Zone IR inputs of the AH66T.



## Programming the Remote

It is important to keep in mind that once a “Control Zone” command is sent, the next command must be received within 30 seconds. After 30 seconds, the zone control will revert back to its normal state if a command has not been received. Once the first command after the “Control Zone” command is received, any additional commands after that must be received within 300 milliseconds. After 300 milliseconds, the zone control will revert back to its normal state if a command has not been received.

### Sample Scenario:

The IR from the RF base station is connected to the IR input of Zone One.

You wish to select source three (a cable box) in Zone Six and then turn the volume up in Zone Six.

Once you issue the Control Zone Six command, you must issue the Source Three Select command within 30 seconds and within 300 milliseconds of the Source Select command you must issue the Volume up command.

Since this may not be very practical to do by having separate pages for the “Control Zone,” Source Select and Volume commands it is recommended that a slightly different approach is taken.

Depending on the remote being used and personal preferences, your method may be different than what is shown on page three. Regardless of the exact programming used, the timeouts discussed above must be taken into consideration.

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## **Programming the Remote (Continued)**

### **Controlling Zones:**

The recommended approach is to create a page of commands on the remote for each zone and then program the "Control Zone" command as the first command on each of the buttons for that zone. This way, whatever button you push, the command will control the intended zone. This method eliminates the need to worry about the timeouts.

So, you could have anywhere from one to twelve pages of zone specific commands (depending on how many zones you want to control) and have Source Select, Volume, Bass and Treble, Do Not Disturb (DND), etc. commands on each of those pages.

### **Sample Command Macros for Zone Two Control:**

To select Source one: CTRL ZONE2 (first command in the macro)  
AUDIO1 (second command in the macro)

To mute or un-mute the zone: CTRL ZONE2 (first command in the macro)  
MUTE TOG (second command in the macro)

To turn the zone off: CTRL ZONE2 (first command in the macro)  
ZONE OFF (second command in the macro)

### **Sample Command Macros for Zone Five Control:**

To select the Internal AM/FM Tuner: CTRL ZONE5 (first command in the macro)  
R1 (second command in the macro)

To turn the bass up in the zone: CTRL ZONE5 (first command in the macro)  
BASS UP (second command in the macro)

To set the zone to Do Not Disturb (DND): CTRL ZONE5 (first command in the macro)  
DND ON (second command in the macro)

As you can see, it is simply a matter of telling the AH66T which zone you wish to control and then issuing the command for the desired function.

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## **Repeating Commands**

Repeating commands are commands that are transmitted as long as the button they are programmed to is being pressed. Volume, Bass and Treble adjustments are typically repeating commands.

Depending on the remote being programmed, it may be required to program a repeat function into the macros for these commands.

Check with the manufacturer of the remote being used in the system for detailed information on programming repeating commands.