

IR Codes for “ReportMappingTable” value. Not all Xbox 360 buttons listed, they are the same as the Media Center Remote.

Microsoft Universal Media Remote for Xbox 360					
Button	Value	Button	Value	Button	Value
Power	0x0C	Stop	0x19	Menu	0x24
Start	0x0D	Next trk	0x1A	Red B	0x25
Info	0x0F	Prev trk	0x1B	Yellow Y	0x26
Ch/Pg +	0x12	Up	0x1E	Open / Close	0x28
Ch/Pg -	0x13	Down	0x1F	Display	0x4F
Fast Fwd	0x14	Left	0x20	Title	0x51
Rewind	0x15	Right	0x21	Silver X	0x64
Play	0x16	Select	0x22	Green A	0x66
Pause	0x18	Back	0x23	Blue X	0x68
Media Center Remote					
Button	Value	Button	Value	Button	Value
0 (rc only)	0x00	Fwd	0x14	TV (kb only)	0x46
1 (rc only)	0x01	Rew	0x15	Music (kb only)	0x47
2 (rc only)	0x02	Play	0x16	Recorded TV	0x48
3 (rc only)	0x03	Record	0x17	Pictures (kb)	0x49
4 (rc only)	0x04	Pause	0x18	Videos (kb)	0x4A
5 (rc only)	0x05	Stop	0x19	Radio (kb)	0x50
6 (rc only)	0x06	Skip	0x1A	Videotext (rc)	0x5A
7 (rc only)	0x07	Replay	0x1B	Red (rc)	0x5B
8 (rc only)	0x08	# (rc only)	0x1C	Green (rc)	0x5C
9 (rc only)	0x09	* (rc only)	0x1D	Yellow (rc)	0x5D
Clear (rc only)	0x0A	Up	0x1E	Blue (rc)	0x5E
Enter (rc only)	0x0B	Down	0x1F	Messenger (kb)	0x64
PC Power	0x0C	Left	0x20		
Green Logo	0x0D	Right	0x21		
Mute	0x0E	OK	0x22		
Info	0x0F	Back	0x23		
Vol +	0x10	DVD Menu	0x24		
Vol -	0x11	Live TV	0x25	(rc only) – MS MCE remote	
Ch/Pg +	0x12	Guide	0x26		
Ch/Pg -	0x13			(kb only) - MS MCE keyboard	
HP Remote					
Button	Value	Button	Value	Button	Value
Power	0x0C	More Info	0x0F	Visualization	0x32
Print	0x4E	Aspect	0x27	Slide Show	0x33
Eject	0x34	Pictures	0x49	Videos	0x4A
Music	0x47	Radio	0x50		
Other HP Remote buttons are same as the MCE buttons indicated above.					

The Hexadecimal values above are used within the “ReportMappingTable” value noted on the following page. The “ReportMappingTable” value can be altered by creating a custom INF file or editing the Registry entry. After changing the value must restart Windows or the eHome under USB in Device Manager must be disabled and re-enabled for changes to take affect.

Windows MC Remote settings are installed using the INPUT.INF file.

In registry under HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\HidIr\Remotes

A binary registry value named “ReportMappingTable” is used to set the functionality of remote buttons.

Seven bytes for each button						
0x00	0x00	0x00	0x00	0x00	0x00	0x00
A	B	C	D	E	F	G

A to D	Remote Code (B, C, and D are 0x00 for the MCE, HP and Xbox 360 remotes)
E	Report Method 0x01 Consumer Controls 0x02 MS Vendor Controls 0x03 Standby Button 0x04 Keyboard (key press event)
F & G	Data (depends on the reporting method)

Keyboard Event			
A to D	Remote Code		
E	Report Method - 0x04 key press event		
F	Modifier (0x00 no modifier)		
	Bit 1 - CTRL		
	Bit 2 - SHIFT		
	Bit 3 - ALT		
	Bit 4 - WIN Key		
	CTRL is 1, SHIFT is 2, ALT is 4, and WIN is 8		
	CTRL	1	(0x01)
	SHIFT	2	(0x02)
	CTRL+SHIFT	3	(0x03)
	ALT	4	(0x04)
	CTRL+ALT	5	(0x05)
	SHIFT+ALT	6	(0x06)
WIN	8	(0x08)	
CTRL+WIN	9	(0x09)	
SHIFT+WIN	10	(0x0A)	
ALT+WIN	12	(0x0C)	
G	USB HID Usage ID MS document (translate.pdf) lists the USB HID Usage IDs document is titled “USB HID to PS/2 Scan Code Translation Table”		

Examples: (Note, the last line in the INF file should not have a comma at the end, these are example lines.)

0x28,0x00,0x00,0x00, 0x04,0x00,0x73, \ ; Function Key 24 to XBox 360 Remote Open button

0x4F,0x00,0x00,0x00, 0x04,0x03,0x1D, \ ; CTRL+SHIFT+Z for Zoom to XBox 360 Display button

0x64,0x00,0x00,0x00, 0x04,0x04,0x3D, \ ; ALT+F4 for Exit application to XBox 360 Silver X button

0x51,0x00,0x00,0x00, 0x04,0x09,0x2B, \ ; CTRL+WIN+TAB for Persistent Flip 3D to XBox 360 Title button

0x66,0x00,0x00,0x00, 0x02,0x48,0x00, \ ; Recorded TV to XBox 360 Green A button

Example Remote Method and Data (can get additional MCE Method and Data values from the INPUT.INF file)

Remote Report Method and Data		
Function	Method	Data
Recorded TV	0x02	0x48,0x00
F24 Function Key	0x04	0x00,0x73
CTRL+SHFT+Z (Media Center Zoom)	0x04	0x03,0x1D
ALT+F4 (Close Program)	0x04	0x04,0x3D
CTRL+WIN+TAB (Persistent Flip 3D)	0x04	0x09,0x2B

Example Keyboard Shortcuts for Windows Vista	
CTRL+WIN+TAB	Windows Vista Persistent Flip 3D
CTRL+SHFT+Z	Media Center Zoom
CTRL+SHIFT+C	Media Center Toggle Close Caption
CTRL+SHIFT+ENTER	Launch App Elevated, when running programs
WIN+#	Run Quick Launch item (where # is the position of the Quick Launch item)
WIN+SPACE	Bring Sidebar to foreground
WIN+G	Put focus on Sidebar (same shortcut keys to navigate through gadgets)
SHIFT	Hold while loading CD/DVD to prevent AutoPlay
WIN+D	Show Desktop
WIN+E	Explorer
WIN+R	Run Dialog
ALT+D	Select Address Bar
CTRL+SHIFT+ESC	Task Manager
ALT+F4	Close Program

In the INPUT.INF file approximately half way down is the following line

HKR,"Remotes\745a17a0-74d3-11d0-b6fe-00a0c90f57da","ReportMappingTable",0x00000001,

and the “ReportMappingTable” for “RC6 based MCE remote” follows that line. Each entry is 7 bytes with the bytes represented in hexadecimal and separated by commas.

Note that the last line of the binary value does not have a comma at the end of the hexadecimal digits. All the hexadecimal digits should end in a comma with exception to the last digit on the last line. The INF lines have comments (start with semi-colon) at the end of the lines. Comments at end of lines are not mandatory. However, the backslash after the hexadecimal digits is mandatory. The backslash indicates the registry entry carries onto the next line, the line continuator.

Do not change the values for other remotes listed in the INPUT.INF file, just the "RC6 based MCE remote". Should not edit the INPUT.INF file, and instead use a custom INF file to change the “ReportMappingTable” entry. Create INF, Right-Click and Install it, then Restart Windows or Disable and then Enable the eHome under USB in Device Manager.

Create a text file and change the file extension to .INF, call it RC6MAP.INF

File contents:

```
[Version]
Signature="$WINDOWS NT$"

[DefaultInstall]
DelReg=Del.Settings
AddReg=Add.Settings

[Del.Settings]
HKLM,"SYSTEM\CurrentControlSet\Services\HidIn\Remotes\745a17a0-74d3-11d0-b6fe-00a0c90f57da","ReportMappingTable"

[Add.Settings]
HKLM,"SYSTEM\CurrentControlSet\Services\HidIn\Remotes\745a17a0-74d3-11d0-b6fe-00a0c90f57da","ReportMappingTable",0x00000001,\
  0x01,0x00,0x00,0x00, 0x04,0x00,0x1e, \ ; 1
  0x02,0x00,0x00,0x00, 0x04,0x00,0x1f, \ ; 2
  0x03,0x00,0x00,0x00, 0x04,0x00,0x20, \ ; 3
  0x04,0x00,0x00,0x00, 0x04,0x00,0x21, \ ; 4
  0x05,0x00,0x00,0x00, 0x04,0x00,0x22, \ ; 5
  0x06,0x00,0x00,0x00, 0x04,0x00,0x23, \ ; 6
  0x07,0x00,0x00,0x00, 0x04,0x00,0x24, \ ; 7
  0x08,0x00,0x00,0x00, 0x04,0x00,0x25, \ ; 8
  0x09,0x00,0x00,0x00, 0x04,0x00,0x26, \ ;
  0x00,0x00,0x00,0x00, 0x04,0x00,0x27, \ ; 0
  0x0B,0x00,0x00,0x00, 0x04,0x00,0x28, \ ; return
  0x0A,0x00,0x00,0x00, 0x04,0x00,0x29, \ ; escape
  0x1D,0x00,0x00,0x00, 0x04,0x02,0x25, \ ; *
  0x1C,0x00,0x00,0x00, 0x04,0x02,0x20, \ ; #
  0x1F,0x00,0x00,0x00, 0x04,0x00,0x51, \ ; down arrow
  0x1E,0x00,0x00,0x00, 0x04,0x00,0x52, \ ; up arrow
  0x21,0x00,0x00,0x00, 0x04,0x00,0x4f, \ ; right arrow
  0x20,0x00,0x00,0x00, 0x04,0x00,0x50, \ ; left arrow
  0x22,0x00,0x00,0x00, 0x04,0x00,0x28, \ ; return
  0x4E,0x00,0x00,0x00, 0x01,0x08,0x02, \ ; AC Print
  0x0F,0x00,0x00,0x00, 0x01,0x09,0x02, \ ; AC Properties (Details)
  0x23,0x00,0x00,0x00, 0x01,0x24,0x02, \ ; AC Back
  0x16,0x00,0x00,0x00, 0x01,0xb0,0x00, \ ; AC Media play
  0x18,0x00,0x00,0x00, 0x01,0xb1,0x00, \ ; AC Media pause
  0x17,0x00,0x00,0x00, 0x01,0xb2,0x00, \ ; AC Media record
  0x14,0x00,0x00,0x00, 0x01,0xb3,0x00, \ ; AC FF
  0x15,0x00,0x00,0x00, 0x01,0xb4,0x00, \ ; AC RW
  0x1A,0x00,0x00,0x00, 0x01,0xb5,0x00, \ ; AC Media next track
  0x1B,0x00,0x00,0x00, 0x01,0xb6,0x00, \ ; AC Media previous track
  0x19,0x00,0x00,0x00, 0x01,0xb7,0x00, \ ; AC Media Stop
  0x6E,0x00,0x00,0x00, 0x01,0xcd,0x00, \ ; AC Media play/pause
  0x10,0x00,0x00,0x00, 0x01,0xe9,0x00, \ ; AC volume up
  0x11,0x00,0x00,0x00, 0x01,0xea,0x00, \ ; AC volume down
  0x0E,0x00,0x00,0x00, 0x01,0xe2,0x00, \ ; AC volume mute
  0x26,0x00,0x00,0x00, 0x01,0x8d,0x00, \ ; AC select program guide
  0x12,0x00,0x00,0x00, 0x01,0x9c,0x00, \ ; AC channel up
  0x13,0x00,0x00,0x00, 0x01,0x9d,0x00, \ ; AC channel down
  0x0C,0x00,0x00,0x00, 0x03,0x82,0x00, \ ; Suspend
  0x2A,0x00,0x00,0x00, 0x03,0x82,0x00, \ ; Discrete Power Off
  0x28,0x00,0x00,0x00, 0x04,0x00,0x73, \ ; Function Key 24 to Xbox 360 Remote Open button
  0x4F,0x00,0x00,0x00, 0x04,0x03,0x1D, \ ; CTRL+SHFT+Z for Zoom to Xbox 360 Display button
  0x64,0x00,0x00,0x00, 0x04,0x04,0x3D, \ ; ALT+F4 for Exit application to Xbox 360 Silver X button
  0x51,0x00,0x00,0x00, 0x04,0x09,0x2B, \ ; CTRL+WIN+TAB for Persistent Flip 3D to Xbox 360 Title button
  0x66,0x00,0x00,0x00, 0x02,0x48,0x00, \ ; Recorded TV to Xbox 360 Green A button
  0x68,0x00,0x00,0x00, 0x04,0x08,0x00 \ ; WIN key for Start Menu to Xbox 360 Blue X button <— note no comma after last hex digits on last line
```

Save the INF file, then Right-Click the INF file and choose Install from Right-Click menu.

And don't forget, the backslashes are mandatory and the last line does not have comma at end of numbers.

Restart Windows or disable/enable the eHome under USB in Device Manager.

By default the eHome IR Receiver works with MCE Remotes only. The Xbox 360 Universal Media remote is not an MCE Remote. To enable the eHome Receiver to work with other RC6 remotes like the Xbox 360, perform either of the following.

- 1) Create and install an INF file then disable/enable eHome under USB in Device Manager.
- or
- 2) Edit the registry then disable/enable eHome under USB in Device Manager.

1) Create and Install an INF file and disable/enable the eHome under USB:

Create a text file and change the file extension to .INF, call it MCALLRC6.INF

File contents:

```
[Version]
Signature="$WINDOWS NT$"

[DefaultInstall]
DelReg=Del.Settings
AddReg=Add.Settings

[Del.Settings]
HKLM,"SYSTEM\CurrentControlSet\Services\HidIr\Remotes\745a17a0-74d3-11d0-b6fe-00a0c90f57da","CodeSetNum0"
HKLM,"SYSTEM\CurrentControlSet\Services\HidIr\Remotes\745a17a0-74d3-11d0-b6fe-00a0c90f57da","CodeSetNum1"
HKLM,"SYSTEM\CurrentControlSet\Services\HidIr\Remotes\745a17a0-74d3-11d0-b6fe-00a0c90f57da","CodeSetNum2"
HKLM,"SYSTEM\CurrentControlSet\Services\HidIr\Remotes\745a17a0-74d3-11d0-b6fe-00a0c90f57da","CodeSetNum3"

[Add.Settings]
HKLM,"SYSTEM\CurrentControlSet\Services\HidIr\Remotes\745a17a0-74d3-11d0-b6fe-00a0c90f57da","CodeSetNum0",0x00010001,0x0
```

Save the INF file, then Right-Click the INF file and choose Install from Right-Click menu.

Restart Windows or disable/enable the eHome under USB in Device Manager.

2) Edit the Registry and disable/enable the eHome under USB:

Under the following key:

HKLM\SYSTEM\CurrentControlSet\Services\HidIr\Remotes\745a17a0-74d3-11d0-b6fe-00a0c90f57da

Delete the values CodeSetNum1, CodeSetNum2, and CodeSetNum3.

Then change CodeSetNum0 to 0 (zero).

Do not alter other remotes, just the “745a17a0-74d3-11d0-b6fe-00a0c90f57da” key.

Restart Windows or disable/enable the eHome under USB in Device Manager.

The text on this page is from the article “Use a remote control with Windows Media Center” on the “windowshelp.microsoft.com” website. The More button on the MCE Remote is equivalent to the Info button on the Xbox 360 and HP remotes.

Entering Text with the Remote

To enter text using the remote control, press a number repeatedly to scroll through the choices that are available for that number. With each repeated press of a number, a different character appears. When you find the character that you want, press the ENTER button on the remote control. For example, if you are a fan of cooking shows, you can search the Guide by keyword for "food" by doing the following:

For letters and numbers, use the button corresponding to the letter or number you want.

1. Press the number 3 three times for the letter "f", and then press ENTER.
2. Press the number 6 three times for the letter "o", and then press ENTER.
3. Press the number 6 three times for the letter "o", and then press ENTER.
4. Press the number 3 one time for the letter "d", and then press ENTER.

Sometimes you do not have to enter every letter of every word into your keyword search. The list of possible choices appears after the third letter.

You can also do the following:

- To switch between character sets such as uppercase, lowercase, and symbol modes, press the CH/PG+ or CH/PG- button on the remote control.
- To backspace, press the CLEAR button on the remote control.
- To enter a space between words, press the (0) button on the remote control.

The MORE button

When you press the MORE button on the remote control, a list displays in Windows Media Center of additional options to choose from. The options that are available depend on your selection on the screen. For example, if you select a picture, and then press the MORE button on the remote, you will get the following options: Picture Details, Rotate, Burn, and Settings.

You can access Settings from anywhere in Windows Media Center by pressing the MORE button on the remote control.

To dismiss the list of options without making a selection, press the BACK button on the remote control, press the ESC button on the keyboard, or click the screen outside the list by using the mouse.

The Volume buttons

By default the volume buttons control the PC's volume, but can be changed using the remote's learning feature.

The TV button

By default the TV button has no function, but can be changed using the remote's learning feature. The TV button is for turning a TV on and off, for when the Media Center PC is attached to a television.

For information on using the MCE Remote's learning feature see the Remote's manual. The Remote's manual is downloadable on the Internet as the *MCE_Remote_Manual.pdf* file. The MCE Remote Keyboard also has a learning feature covered in the *MCE_Keyboard.pdf* file. When searching for the files, note the underscore characters in both PDF file names. For programming the Xbox 360 Universal Remote see the *na-uniremote.pdf* file.